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A TAXONOMIC STUDY OF NEOTROPICAL BEETLES OF
THE FAMILY MORDELLIDAE, WITH DESCRIPTIONS
OF NEW SPECIES

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THE Mordellidae are an obscure family of small or minute beetles that have never commanded much attention, owing to the relatively innocuous habits of the adults and larvae. Very little has ever been done with this group except in a taxonomic way, and not a single complete life history is known.

Unfortunately, many of the forms collected in obscure places are known only from unique specimens. It seems unlikely that taxonomists will ever arrive at a point where unlimited material will be available for all species, and, no doubt, many uniques will remain alone in collections for years to come. However, some of these single individuals are sufficiently distinct from their closest allies in the matter of actual description and structural characters to permit their proposal as new names. It has been the policy of the present writer to describe such uniques only when they can be separated on the basis of characters that are known not to vary in other members of the family. Many more, which seem distinct but are closely allied to known forms, have been set aside without names, because the characters needed for their separation are known to be variable in certain cases. No description has been made on the basis of color and pubescent markings alone, since these features are often considerably aberrant, but rather, when one or more structural points of differentiation can be found, the color and pattern

of pubescence are distinct enough to make immediate, superficial separation possible. In all cases a combination of characters, rather than a single one, has been used for specific and generic diagnosis.

A peculiar characteristic has been observed in the present study. At the ends of the tarsi are the tarsal claws, which are distinct structures bearing one or more teeth on their mesal surfaces. These teeth apparently vary in number, position, and shape according to the species being considered. At present it seems premature to state definitely that these will form a new character of specific value, but there is apparently a diversity of detail that seems to provide much the same diagnostic character as that provided by the genitalia in certain other groups.

Closely appressed to the tarsal claws, and scarcely distinguishable without being mounted on a slide, is an additional pair of tarsal "claws," somewhat less heavily chitinized than the other pair. These "claws" are attached to the pretarsus at the same point as the other pair. Their specific value is probably somewhat less than that of the external pair, owing to their lesser chitinization, which permits a bending into various shapes before the integument hardens upon emergence of the adult insect. This character has been observed only in the subfamily Mordellinae, the Anaspinæ apparently being without it. In addition, all the Anaspinæ that the writer has observed have but the single terminal tooth on the tarsal claw.

One new genus and 29 new species are herein recorded. Thirty others are found to be much more widely distributed than has hitherto been supposed. Mention of described species is limited to those forms known only from restricted localities. One other species is taken out of synonymy.

This study has been based primarily on material received from the United States National Museum and the Mexican Department of Agriculture, together with a small series of specimens from the University of Puerto Rico and the Deutsches Entomologisches Institut. The types of all new species are deposited in the National Museum.¹ Paratypes, when available, remain in the collection of the writer.

Grateful acknowledgment is made to officials of the National Museum; Dr. A. Dampf, chief entomologist of the Mexican Department of Agriculture; Prof. S. A. Danforth, of the University of Puerto Rico; and Dr. Walther Horn, director of the Deutsches Entomologisches Institut. My thanks are due to Miss Kathryn Summerman and Julius Bosen, graduate students in the Department of Entomology at the University of Illinois, for their kind assistance

¹The types of *Mordella militaris*, new species, received from the Deutsches Entomologisches Institut, are returned to that institution.

in the preparation of the figures. Finally, I wish to express my indebtedness to Prof. C. L. Metcalf, head of the Department of Entomology at the University of Illinois, under whose direction this study was made.

Genus GLIPA LeConte

Glipa LECONTE, Coleoptera of Kansas and eastern New Mexico, p. 17, 1857.

GLIPA HIEROGLYPHICA Schwarz

FIGURE 17, *k*

Glipa hieroglyphica SCHWARZ, Proc. Amer. Philos. Soc., vol. 17, p. 372, 1878.

Tomoxia hilaris SMITH, Trans. Amer. Ent. Soc., vol. 10, p. 80, pl. 1, figs. 30, 32, 1882.

Six specimens: Two from the Dominican Republic, June–July 1913 (H. W. Foote, Yale Expedition); one from Alhajuelo, Panama, April 12, 1911 (A. Busck); one from Porto Bello, Panama, March 4, 1911 (A. Busck); one from Taboga, Panama, February 23, 1912 (A. Busck); one from Trinidad Rio, Panama, March 8, 1912 (A. Busck).

This species, originally described from Florida, has, I believe, been wrongly suppressed as a synonym of *G. hilaris* (Say) (1835, p. 190) since the publication of the J. B. Smith paper in 1882. Additional specimens, from the Dominican Republic and Panama, as recorded above, tally more closely with the Florida types in the United States National Museum than with true specimens of *hilaris* (*vide* Barber, on pin label of specimen, det. 1935). Structurally, there can be no doubt that the two species are distinct. Comparison of specimens of *hilaris* from Illinois with the above-mentioned examples of *hieroglyphica* shows distinct differences in the maxillary palpi, antennae, and tarsal claws (fig. 17, *k*, *l*). In addition, the pattern of the dermal color and pubescence of the dorsal surface is distinctly different. In my opinion there can be no doubt that *hieroglyphica* merits valid specific standing.

Genus TOMOXIA Costa

Tomoxia COSTA, Fauna Regni Napoli, Mordellidae, p. 8, 1854.

TOMOXIA SPINIFER Champion

Tomoxia spinifer CHAMPION, Biologia Centrali-Americana, Coleoptera, vol. 4, pt. 2, pp. 261, 462, pl. 9, figs. 8, 8a, 1891.

Three specimens: One from Turrialba, Costa Rica (Schild and Burgdorf); one from Livingston, Guatemala, April 5 (Barber and Schwarz); one from Peru, October 3, 1935, found dead in dried wood at Washington, D. C. (H. Y. Gouldman).

TOMOXIA FULVICEPS Champion

FIGURE 17, f

Tomoxia fulviceps CHAMPION, Biologia Centrali-Americana, Coleoptera, vol. 4, pt. 2, p. 262, pl. 11, fig. 10, 1891.

Three specimens: One from Cabima, Panama, May 25, 1911 (A. Busck); one from Porto Bello, Panama, March 14, 1911 (A. Busck); one from San Carlos, Costa Rica (Schild and Burgdorf).

TOMOXIA FIEBRIGI, new species

FIGURE 17, d

This species is closely allied to *auratonotata* Ray (1936a, p. 145) but may easily be separated from the latter member of the genus by the broader scutellum, shorter intermediate tibiae, and the equality in length between abdominal segments 3 and 4.

Length: 3.95 mm.; including anal style, 4.65 mm. Form short, quite robust, subcuneate, broadest at middle of thorax, sides narrowing posteriorly. Derm entirely black, except for labial palpi, which are orange-red. Body densely covered with fine, recumbent, silvery pubescence, rufobrunneous on elytra.

Antennae 1.25 mm. long, reaching middle of lateral pronotal margin; segments 3 and 4 equal; 5-10 each as long as 4, considerably broadened apically; 11 distinctly longer than 10, oval, sides rounded, apex slightly rounded. Distal segment of maxillary palpi enlarged, form of a scalene triangle, basal angle a right angle, outer margin broadly rounded, inner margin almost straight, corners rounded, base arcuate, midbasal lobe short, sides angular, base truncate. Scutellum twice as broad as long, sides slightly angular, posterior emargination wanting. Elytra four-tenths longer than broad (2.65 by 1.85 mm.), sides attenuate for their entire length, apices broadly, individually rounded. Intermediate tarsi distinctly longer than their tibiae; penultimate segments of anterior and intermediate tarsi simple. Tarsal claws with four distinct, broad, blunt teeth, distal one longest, and a small subacute, premedian tooth (fig. 17, d). "Median claws" twice as thick at base as medially, apical half of mesal margin with four thin, very acute teeth, outer edge rounded. Outer spine of posterior tibiae twice as long as inner one. Anal style twice as long as apical ventral segment (0.7 by 0.35 mm.), very stout, short, evenly attenuate, broadly truncate at apex.

Type locality.—San Bernardino, Paraguay.

Type.—Male, U.S.N.M. No. 52926, a unique specimen collected by K. Fiebrig.

TOMOXIA BREVIPENNIS, new species

FIGURES 17, a; 19, c

This species is most closely allied to *binotata*, new species, but may be easily separated from that member of the genus by the greater number of elytral spots, the longer, narrower body, the shorter, broader, anterior and intermediate tibiae, the shorter distal segment of the maxillary palpi, and the narrower scutellum. From *latenotata* Pic (1924, p. 23) it may be separated by the much shorter anal style, the narrower scutellum, the shorter anterior and intermediate tarsi, and the different position of the elytral spots.

Length: 6.6 mm.; including anal style, 8.5 mm. Form moderately robust, elongate, sides narrowing posteriorly, broadest near middle of pronotum. Derm piceous, eyes, antennae, mouth parts, anterior femora and tarsi, and spurs of posterior tibiae castaneous, remainder of legs and ventral abdominal segments fuscocastaneous. Body densely covered with fine, recumbent pubescence, reddish brown except for the following whitish areas: mixed on head; covering margins of pronotum broadly, with a curved band extending from anterior angles into disk and meeting posterior marginal line on either side of middle; scutellum entirely; an indeterminate humeral spot shortly curving into disk, an oblong scutellar spot extending along suture, a large, rounded, postmedian, subsutural spot, and a pair of irregular postmedian spots on middle of disk curving posteriorly, reaching neither suture nor margins; intermediate and posterior legs, parts of mesosternum and metasternum, and bases of abdominal segments, basal one and anal style broadly, whitish.

Antennae 2.1 mm. long, reaching posterior angles of pronotum; segment 4 twice as long as and much broader than 3; 5-10 each as long as 4 but successively narrower distad; 11 distinctly longer than 10, broadest beyond middle, sides and apex rounded. Distal segment of maxillary palpi enlarged, with form of a broad scalene triangle, sides curved, apex straight. Pronotum much broader than long (2.8 by 2.1 mm.), sides rounded, broadest medially, base arcuate, midbasal lobe short, but rounded. Scutellum of a broad, modified triangular shape, twice as broad as long, sides angularly cutting into elytra, apex broadly rounded, subtruncate. Elytra three-fourths longer than broad (4.5 by 2.6 mm.), sides attenuate posteriorly, apices individually rounded. Anterior tarsi much shorter than their tibiae; intermediate pair equal in length; three intermediate segments of anterior and intermediate tarsi dilated, flattened. Tarsal claws bearing three teeth, distal one longest (fig. 17, a). Outer spur of posterior tibiae one-half longer than apical ventral segment (1.9 by 1.2 mm.), stout,

evenly attenuate, truncate at apex; last ventral segment twice as long as penultimate one.

Type locality.—Barro Colorado Island, Canal Zone, Panama.

Type.—Female, U.S.N.M. No. 52923, collected April 26, 1926, by C. T. Greene.

TOMOXIA BINOTATA, new species

FIGURE 17, c

This species is most closely allied to *innotata* Pic (1924, p. 23) and may be separated from the latter member of the genus by the binotate elytra, the peculiar character of the antennae, the broad distal segment of the maxillary palpi, and the much larger size.

Length: 7 mm.; including anal style, 8.5 mm. Form short, moderately robust, subcuneate, sides narrowing posteriorly, broadest near base of prothorax. Derm fuscopiceous, femora of anterior and intermediate legs, mesal half of distal segment of maxillary palpi, and antennae, fuscocastaneous. Body densely covered with fine recumbent brownish pubescence, which assumes a violaceous tinge in certain lights; a pair of postmedian, elytral spots as far from suture as width of spot and almost touching lateral margins, and basal margins of ventral abdominal segments, white.

Antennae 1.8 mm. long, reaching middle of lateral pronotal margin; segment 3 slightly longer than 4; 5–10 each succeeding shorter than preceding, 10 two-thirds as long as 3; 11 as long as 4, broadest subapically, subtriangular in profile, rounded at corners. Distal segment of maxillary palpi enlarged, form of an isosceles triangle, mesal edge straight, outer edge curved, corners rounded. Pronotum broader than long (3 by 2 mm.), sides rounded, base arcuate, mid-basal lobe short, truncate. Scutellum slightly broader than long, sides angular, apex truncate, not emarginate, apical angles rounded. Elytra two-thirds longer than broad (4 by 2.3 mm.), sides attenuate posteriorly, apices broadly, individually rounded. Intermediate tarsi longer than their tibiae; penultimate segment of anterior and intermediate tarsi simple. Tarsal claws with three distinct, broad teeth, distal one longest, and a large, blunt, premedian tooth (fig. 17, c). "Median claws" twice as thick at base as medially, apical three-fourths of mesal margin and entire lateral margin broadly rounded. Outer spur of posterior tibiae one-half longer than inner one, densely covered with coarse pubescence, broadest subapically, thence rounded to apex. Anal style two and one-half times as long as apical ventral segment (1.3 by 0.5 mm.), stout, evenly attenuate, truncate at apex.

Type locality.—Barro Colorado Island, Canal Zone, Panama.

Type.—A unique male, U.S.N.M. No. 52925, collected July 17, 1923, by R. C. Shannon.

TOMOXIA SERRICORNIS, new species

FIGURE 16, *g*

This species is most closely allied to *horni* Ray (1936b, p. 147) but may adequately be separated from the latter member of the genus by the more parallel-sided form, difference in color and pattern of pubescence, the greater length of the intermediate tarsi and of the outer tibial spur, and the shorter elytra.

Length: 3.4 mm.; including anal style, 4.1 mm. Robust, sides subparallel; body fuscobrunneous, maxillary palpi and anterior legs flavocastaneous. Surface densely covered with fine, recumbent, whitish pubescence, uniformly covering derm, except on disk of elytra, where it is irregularly disposed and not forming definite spots, except for a postmedian, transverse arcuate band.

Antennae 1.1 mm. long, reaching base of pronotum, segments 3 and 4 large, equal; 5 to 10 subequal, each much broader and longer than 4; 11 distinctly longer than 10, apex and sides rounded. Distal segment of maxillary palpi enlarged, ovate, broadest at middle, sides and apex rounded, outer side greatly so (fig. 16, *g*). Pronotum distinctly broader than long (1.4 by 1 mm.), apex and sides rounded, basal angles obtuse, base arcuate, midbasal lobe short, truncate. Scutellum broader than long, sides angular, apical angles obtuse. Elytra one and seven-tenths times as long as broad (2.4 by 1.4 mm.), sides parallel to within one-fourth of apex, broadly curved posteriorly, apices individually rounded. Intermediate tarsi longer than their tibiae; penultimate segment of anterior and intermediate tarsi simple. Tarsal claws with two distinct teeth, and a large, thick, blunt, premedian elevation. Outer spur of posterior tibiae three and one-half times as long as inner one. Anal style one-half longer than apical ventral segment (0.7 by 0.48 mm.), stout, apex broadly truncate.

Type locality.—Roxborough, Tobago.

Type.—A single female, U.S.N.M. No. 52924, taken at the Archibald Estate, Roxborough, Tobago, November 6, 1918 (H. Morrison).

MORDELLOIDES, new genus

This genus is allied to both *Zeamordella* Broun (1886, p. 847) and *Mordella* Linnaeus (1758, p. 420). From the former it may be separated by the angular insertion of the distal segment of the maxillary palpi, the much longer length of the posterior legs, the thin, filiform tarsi, and the much longer, acute anal style. From *Mordella* it may be separated by the semicircular scutellum, the lengthy intermediate tibiae, the angulate anterior angles of the pronotum, the single flattened spur of the posterior tibiae, and the truncate apex of the last ventral segment. From *Reynoldsiella* Ray (1930, p. 184), to which

genus it is also allied, it may be separated by the presence of a sub-apical ridge on the posterior tibiae, the much narrower shape of the body, the flat tibial spur, and characters as mentioned in comparison with *Mordella* above. *Mordelloides*, *Zeamordella*, and *Reynoldsiella* may be linked together because of the semicircular scutellum.

The single broad, flattened spur of the posterior tibiae is unique among known Mordellidae and will readily separate this form from any other member of the family.

Form suboval, moderately robust, convex. Distal segment of maxillary palpi broadly, equilaterally triangular, inserted at the corner. Antennae subserrate, distal segment distinctly longer than penultimate segment. Pronotum much broader than long, anterior angles obtuse, not rounded. Scutellum fairly large, semicircular. Mesosternum produced posteriorly in the form of a rounded lobe. Posterior coxae elongate, contiguous, meeting in a depressed sutural line; anterior margin of latter part closely connected with rounded lobe of mesosternum. Anal style long, more than four times length of last ventral segment, broadest at its basal fifth, then suddenly narrowed and attenuate to apex, curved ventrad. Intermediate tibiae longer than their tarsi, the latter filiform; posterior tibiae with but a single, broad, flattened, tibial spur, concave on its anterior surface, convex on its posterior surface.

The genotype is *Mordelloides acuticauda*, new species, described below.

MORDELLOIDES ACUTICAUDA, new species

FIGURES 17, *i*; 19, *b*

The single, flattened spur of the posterior tibiae, the semicircular scutellum, the peculiar antennae, and other generic characters will serve adequately to separate this species from any of its allies that might superficially resemble it.

Length: 2.3 mm.; including anal style, 5.8 mm. Form moderately robust, convex, suboval, sides attenuate, narrowing posteriorly, broadest near base of pronotum. Head castaneous, darkening evenly caudad, piceous at occipital margin, mouth parts and antennae flavocastaneous, distal segment of latter somewhat fuscous in certain lights; pronotum fuscous, sides broadly castaneous; elytra fusco-castaneous, a broad, curved, humeral stria extending toward but not reaching the suture, castaneous; anterior and middle legs, posterior tarsi, and middle of ventral abdominal segments, flavocastaneous; posterior tibiae and anal style brunneous. Surface densely covered with fine, recumbent pubescence, yellowish on head, pronotum, and elytra, condensed on latter part to form the following fasciae: a curved

humeral line covering underlying castaneous derm, a transverse, post-median fascia, extending to and along lateral margins but not reaching humeri, extending posteriorly along suture and coalescing with a preapical curved fascia that fails to reach lateral margins; a mixed yellowish white on ventral surface and legs.

Antennae 0.9 mm. long, scarcely reaching base of lateral prothoracic margin; segments 3 and 4 equal; 5-10 subserrate, each broadest medially and each twice as long as 4; 11 broadly rounded on sides and apex, distinctly broader and twice as long as 10, broadest pre-medially, apparently truncate at apex. Distal segment of maxillary palpi enlarged, form of an equilateral triangle, sides straight, angles rounded. Pronotum almost twice as broad as long (1.05 by 0.6 mm.), apical angles obtuse, pointed, sides rounded, basal angles obtuse, base arcuate, midbasal pronotal lobe short, declivious, truncate. Elytra almost twice as long as broad (1.9 by 1 mm.), sides visibly attenuate from base to apex, apices individually rounded. Intermediate tibiae distinctly longer than their tarsi; penultimate segment of anterior and intermediate tarsi filiform. Tarsal claws with four distinct teeth (fig. 17, *i*). Posterior tibiae with a single, broad, flattened tibial spur, attenuate to apex, two-thirds length of basitarsus, concave on anterior surface, convex on posterior surface. Anal style four and one-half times as long as apical ventral segment (1.4 by 0.3 mm.), narrow, thin, curved ventrad at its middle, broad at basal fifth, thence narrowing abruptly distad and attenuate to apex; last ventral segment truncate at apex, but one-half longer than penultimate one.

Type locality.—Tierra Blanca, Veracruz, Mexico.

Type.—A unique female, U.S.N.M. No. 52922, collected on September 17, 1924, from weeds of the coastal plain, near railway of the Isthmian line (A. Dampf).

Remarks.—The dermal color of the elytra is changeable according to the angle from which it is viewed, a more noticeable castaneous tinge being visible from certain diagonal directions. The description of the elytra was made from a direct dorsal view.

Genus MORDELLA Linnaeus

Mordella LINNAEUS, *Systema naturae*, ed. 10, p. 420, 1758.

MORDELLA DIVERGENS, new species

FIGURE 19, a

This species is most closely allied to the North American *M. lunulata* Helmuth (1865, p. 96), but it may be separated from the

latter member of the genus by the divergent line of pubescence on the elytra, the rounded mesal edge of the terminal segment of the maxillary palpi, and the larger size.

Length: 5.4 mm.; including anal style, 6.8 mm. Moderately robust, subcuneate; dermal color black; surface densely covered with fine, recumbent pubescence, partaking of ground color, except for the following whitish areas: head and pronotum completely, condensed on latter part to form three short, longitudinal, basal bands; scutellum completely; elytra with humeri narrowly and two divergent stripes, anterior extending submarginally to within one-sixth of apex and separated from margin by its own width, interior one extending diagonally across disk and joining whitish suture subapically, sides of mesosternum and metasternum densely, bases of abdominal segments, and legs somewhat less distinctly.

Antennae 1.4 mm. long, scarcely reaching posterior coxae; segments 3 and 4 equal in length; 5-10 each one-half longer than 4 and considerably broadened; 11 rounded, one-half longer than 10. Distal segment of maxillary palpi enlarged, subtriangular, rounded on mesal surface and apex. Pronotum one-third broader than long (2.1 by 1.6 mm.), convex, sides finely margined, basal angles obtuse, midbasal lobe short, broad, subtruncate. Scutellum twice as broad as long, rounded-triangular. Elytra broadest subbasally, almost twice as long as broad (3.8 by 2.1 mm.), sides attenuate to apex, latter parts individually rounded, distinctly obtuse. Intermediate tibiae and tarsi equal in length. Tarsal claws with four teeth, all somewhat blunt at ends, proximal one rudimentary. Anal style 3 times length of apical ventral segment, narrowly truncate at apex.

Type locality.—Mount Puilsboreau, Haiti.

Type.—A unique male, U.S.N.M. No. 52930, collected on May 29, 1927, by G. N. Wolcott.

MORDELLA LATITHORAX, new species

This species is somewhat allied to *biformis* Champion (1891, p. 295) but differs from the latter member of the genus in numerous particulars, the most striking of which are the decidedly transverse pronotum, the equilateral condition of the distal segment of the maxillary palpi, the much narrower and more elongate antennae, and the different color.

Length: 3.5 mm.; including anal style, 4.8 mm. Form moderately broad, sides parallel posteriorly to middle of elytra, thence broadly rounded to apex; body broadest near base of pronotum. Head castaneous, with a piceous rounded spot on vertex reaching occiput and extending laterally in a narrow line to eyes, anteriorly not extending

beyond middle of eyes; pronotum piceous, with a pair of castaneous spots on either side of middle, separated by a piceous line, extending posteriorly along lateral margins, but not reaching base; elytra piceous, with apex narrowly castaneous; mesosternum and metasternum, posterior femora and tibiae, and distal half of anal style fusco-piceous; antennae, mouth parts, anterior and intermediate legs, posterior tarsi, abdomen, and base of anal style castaneous. Surface densely covered with fine, recumbent pubescence, partaking of ground color, except on dorsal surface, where it has been abraded and only a few yellowish hairs remain.

Antennae 1.1 mm. long, slender, reaching base of lateral pronotal margin; segment 4 one-half longer than 3; 5-10 each one-third longer than 4 and but slightly broader; 11 missing. Distal segment of maxillary palpi enlarged, with form of an equilateral triangle. Pronotum six-tenths broader than long (1.6 by 1 mm.), apex and sides broadly rounded, basal angles obtuse, base arcuate, midbasal lobe moderately produced, rounded. Scutellum large, broadly triangular, sides but slightly curved, apical angle rounded. Elytra but seven-tenths longer than broad (2.5 by 1.45 mm.), sides parallel on basal half, thence strongly curved to apex, apices individually rounded. Intermediate tibiae and tarsi approximately equal in length, second and third segments of latter part short, somewhat dilated, penultimate segment considerably broadened, fifth segment being inserted near base of latter and only claws visible beyond distal margin. Outer spur of posterior tibiae two and one-half times as long as inner one. Anal style two and one-half times as long as apical ventral segment (1.3 by 0.5 mm.), moderately thick at base, attenuate to apex; last ventral segment eight times length of penultimate one.

Type locality.—Limon Plantation, Chagres River, Panama.

Type.—Male, U.S.N.M. No. 52927, a unique individual taken on July 14, 1918, from sweepings around a cornfield (H. F. Dietz and J. Zetek).

Remarks.—The three distal segments of the posterior tarsi are missing in the type and no mention can therefore be made of the tarsal claws.

MORDELLA SCUTELLARIS Fabricius

Mordella scutellaris FABRICIUS, Systema eleutheratorum, vol. 2, p. 123. 1801.

Five specimens: One from Arecibo, Puerto Rico, November 1, 1932, on flower of *Curte amor*; one from Ponce, Puerto Rico, August 21, 1933, on flower of *Senegalia* (R. G. Oakley); one from Bayamon, Puerto Rico, June 2, 1934, on milkweed (Lesesne et al.); two from Arecibo, Puerto Rico, March 13, 1934, and March 21, 1935, on *Margarita* (Anderson).

MORDELLA HAITIENSIS, new species

FIGURE 16, a

In addition to its difference in color pattern this species may be separated from its closest ally, *dimidiata* Champion (1891, p. 234), by the greater length of the fourth antennal segment, the emarginate apex of the distal segment of the maxillary palpi, and the very long last ventral abdominal segment.

Length: 2.75 mm.; including anal style, 4 mm. Moderately robust, sides attenuate, narrowing posteriorly, broadest at middle of pronotum. Head piceous, antennae and mouth parts flavous; prothorax flavobrunneous; elytra piceous, with a diagonal, quadrangular, flavous spot on disk near base, separated from lateral margin by less than one-half its width; ventral surface black; anterior legs flavous, intermediate pair fuscobrunneous. Surface densely covered with fine, recumbent pubescence, yellowish white, except on elytra, where it forms golden areas, as follows: covering subbasal flavous spot and entire apical half, whence it extends in a broad line along suture to base.

Antennae 0.37 mm. long, reaching base of pronotum, segment 4 distinctly longer than 3; 5-10 serrate, each one-half longer than 4 and much broader at apex, slightly decreasing in length distally; 11 distinctly longer 10, broadest at apical third, sides and apex broadly rounded. Distal segment of maxillary palpi enlarged, form of a scalene triangle, outer side longest, apical angle emarginate (fig. 16, a). Pronotum distinctly broader than long (1 by 0.78 mm.), apex and sides rounded, basal angles obtuse, base arcuate, midbasal lobe very short, truncate. Scutellum small, triangular. Elytra twice as long as broad (2 by 1 mm.), sides visibly attenuate on their apical two-thirds, broadly curved subapically, apices individually rounded. Intermediate tarsi distinctly longer than their tibiae; penultimate segment of anterior and intermediate tarsi simple. Tarsal claws with three distinct teeth. Outer spur of posterior tibiae twice as long as inner one. Anal style one-half longer than apical ventral segment (1.2 by 0.82 mm.), narrow, attenuate to apex; last ventral segment seven times as long as penultimate one.

Type locality.—Mariani, Haiti.

Type.—Male, U.S.N.M. No. 52929, a unique individual taken on September 17, 1918, by W. A. Hoffman.

MORDELLA VIDUA Solier

Mordella vidua SOLIER, in Gay, *Historia física y política de Chile*, vol. 5, p. 270, 1851.

Three specimens: Two from Angol, Chile, January 14, 1928 (D. S. Bullock); one from Chile (E. C. Reed).

MORDELLA MILITARIS, new species

This species is most closely allied to *ogloblini* Pic (1930, p. 29) and may be separated from the latter member of the genus by the absence of distinct maculations on the elytra, the more slender, attenuate anal style, and the smaller size. In the synopsis of the Argentinian species of *Mordella* (Pic, 1936, pp. 114, 115) *militaris* keys out to *ogloblini*.

Length: (male) 5.85 and (female) 7.35 mm.; including anal style, (male) 8.1 and (female) 9.35 mm. Elongate, sides narrowing posteriorly to apex of elytra, body subcuneate in shape; dermal color piceous, except for basal three-fourths of elytra, which are golden-brown. Surface densely clothed with fine, recumbent pubescence, partaking of ground color, except for the following whitish areas: head; pronotum, densest on lateral and basal margins; elytra, condensed on suture and apex of golden-brown area; mesosternum and metasternum; basal margins of ventral abdominal segments, densest at lateral edge; base of anal style; legs.

Antennae (male) 2.2 and (female) 2.4 mm. long, reaching posterior coxae; segments 3 and 4 equal in length; 5-10 distinctly serrate, each slightly longer and twice as broad as 4; 11 rounded, slightly longer than 10. Distal segment of maxillary palpi enlarged, with form of a scalene triangle, outer margin distinctly curved, cephalic surface with a median, elongate depression. Prothorax distinctly broader than long (1.6 by 1.5 mm.), sides rounded, base arcuate, basal lobe short, subtruncate. Scutellum small, subtriangular, sides and apical angle rounded. Elytra twice as long as broad (3.6 by 1.8 mm.), sides straight, attenuate to apex, apices individually rounded. Tarsal claws with seven teeth, the distal one longest, successively shortening proximad, the proximal one scarcely more than rudimentary. Anal style slightly more than twice as long as apical ventral segment, slender from a dorsal view, attenuate to apex.

Type locality.—Argentina.

Type.—Male, in the collection of the Deutsches Entomologisches Institut.

Remarks.—A male and female example (type and allotype), with the data merely as "Argentina—Coll. Kraatz," contains all available information. There is no visible external difference between the sexes. The middle tarsi are missing in both specimens.

MORDELLA SUMMERMANAE, new species

This species cannot be closely allied with any of the known North American forms. The form of the body, with its subovate form, the extremely short anal style, the short elytra, and the narrow distal

segment of the maxillary palpi separate it at once from any species recorded in the literature. For systematic position it may be placed near *seriata* Champion (1891, p. 298).

Length: 2.2 mm.; including anal style, 2.7 mm. Form short, broad, subovate, broadest near base of pronotum; dermal color black, antennae and legs fuscous, spurs of posterior tibiae and genitalia flavous. Surface densely covered with fine, recumbent, yellowish-brown pubescence, except on ventral abdominal segments, where it is whitish.

Antennae 0.5 mm. long, scarcely reaching base of pronotum; segments 3 and 4 equal in length; 5-10 each as broad as long, strongly serrate, broadest apically; 11 distinctly longer than 10, rounded on sides and apex, broadest medially; distal segment of maxillary palpi enlarged, with form of an elongate isosceles triangle, sides slightly curved, corners rounded. Pronotum distinctly broader than long (0.85 by 0.6 mm.), broadest subbasally, apex and sides rounded, basal angles almost right angles, base arcuate, midbasal lobe short, but rounded. Scutellum small, broadly triangular, sides visibly curved, apical angle rounded. Elytra less than twice as long as broad (1.6 by 0.85 mm.), sides distinctly curved from base to apex, apices individually rounded. Anterior and intermediate tibiae longer than their tarsi, second and third segments of latter part short, but not dilated. Tarsal claws with three teeth, all blunt, basal one obtuse, very much flattened. Anal style short (0.5 by 0.4 mm.), but one-fourth longer than apical ventral segment, very broad at base, but one-third longer than broad from a dorsal view, sides straight, apex rounded.

Type locality.—Constanza, Dominican Republic.

Type.—A unique female, U.S.N.M. No. 52928, taken on May 22, 1927, by A. Wetmore.

MORDELLA FLAVOFASCIATA Champion

Mordella flavofasciata CHAMPION, Biologia Centrali-Americana, Coleoptera, vol. 4, pt. 2, p. 287, pl. 11, fig. 18, 1891.

One specimen: Potrero, Veracruz, Mexico, October 28, 1924, on weeds, 600 meters elevation (A. Dampf).

MORDELLA SERIATA Champion

Mordella seriata CHAMPION, Biologia Centrali-Americana, vol. 4, pt. 2, p. 298, pl. 13, figs. 9, 9a, 1891.

One specimen: Finca Vergel, Huixtla Valley, Chiapas, Mexico, May 15, 1935, 700 meters elevation (A. Dampf).

Genus CALYCE Champion

Calyce CHAMPION, Biologia Centrali-Americana, vol. 4, pt. 2, p. 307, 1891.

CALYCE MACULATA Pic

Calyce maculata Pic, L'Échange, vol. 27, p. 191, 1911.

One specimen: Trinidad (A. Busck).

CALYCE FULVA Champion

Calyce fulva CHAMPION, Biologia Centrali-Americana, Coleoptera, vol. 4, pt. 2, p. 307, pl. 13, figs. 21, 21a, 1891.

One specimen: San Carlos, Costa Rica (Schild and Burgdorf).

Genus GLIPODES LeConte

Glipodes LeCONTE, Proc. Acad. Nat. Sci. Philadelphia, vol. 14, p. 48, 1862.

GLIPODES SERICANS (Melsheimer)

Mordella sericans MELSHEIMER, Proc. Acad. Nat. Sci. Philadelphia, vol. 2, p. 312, 1846.

Glipodes sericans LeCONTE, Proc. Acad. Nat. Sci. Philadelphia, vol. 14, p. 48, 1862.

Two specimens: One from Cacao, Trece Aguas, Alta V. Paz, Guatemala, March 27 (Schwarz and Barber); one from Paraiso, Canal Zone, Panama, April 29, 1911 (E. A. Schwarz).

GLIPODES HELVA LeConte

Glipodes helva LeCONTE, Proc. Acad. Nat. Sci. Philadelphia, vol. 14, p. 48, 1862.

Three specimens: One from Xolitle, Guerrerro, Mexico, August 3, 1930, at light (J. Parra); one from Trinidad Rio, Panama, June 9, 1912 (A. Busck); one from Caño Saddle, Gatun Lake, Panama, May 3, 1923 (R. C. Shannon).

Genus CONALIA Mulsant and Rey

Conalia MULSANT and REY, Ann. Soc. Agr. Lyon, ser. 3, vol. 2, p. 313, 1858.

CONALIA EBENINA Champion

Conalia ebenina CHAMPION, Biologia Centrali-Americana, Coleoptera, vol. 4, pt. 2, p. 306, pl. 13, figs. 20, 20a, b, c, 1891.

Conalia fulvoplagiata CHAMPION, Trans. Ent. Soc. London, 1896, p. 50.—RAY, Coleopt. Contr., vol. 1, pt. 3, p. 163, 1930.

Twenty-nine specimens: One from San Rafael, Jicaltepec, Veracruz, Mexico (Townsend); one from Montemorelo, Nuevo Leon, Mexico, June 3, 1931, grass-citrus, 432 meters elevation (A. Dampf); five from Santa Anita, Jalisco, Mexico, August 7, 1927, on weeds, 2,000 meters elevation (A. Dampf); one from Plancha Piedra, Peten Department, on the border between British Honduras and Guatemala, October 27, 1925, swept from weeds (A. Dampf); one from La Ceiba, Honduras, August 27, 1916 (F. J. Dyar); one from Cacao, Trece Aguas, Alta Vera Paz, Guatemala, February 25 (Schwarz and Barber); one from Gamboa, Canal Zone, Panama, July 17, 1918, sweep-

ings (H. F. Dietz and J. Zetek); two from Pueblo Buevo, Papaya Plantation, 4 miles from Panama City, Panama, August 1926 (H. Morrison); three from Limon Plantation, Chagres River, Panama, July 14, 1918, sweepings around cornfield (H. F. Dietz and J. Zetek); one from Montserrat, Trinidad, June 29 (A. Busck); two from D'Abadie, Trinidad, October 13, 1918 (H. Morrison); one from Department of Agriculture grounds, Port-of-Spain, Trinidad, November 23, 1918 (H. Morrison); three from Tobago Island, Panama, September 21, 22, 1918 (H. F. Dietz); one from La Romana Centrale, Dominican Republic, July 15, 1917 (H. Morrison); one from San Pedro de Maoris, Dominican Republic, July 15, 1917 (H. Morrison); one from Tucuman, Argentina (G. F. Mozuetta); and three from San Bernardino, Paraguay.

Genus MORDELLISTENA Costa

Mordellistena COSTA, Fauna Regni Napoli, Mordellidae, pp. 16, 31, 1854.

MORDELLISTENA CRUX Champion

Mordellistena crux CHAMPION, Biologia Centrali-Americana, Coleoptera, vol. 4, pt. 2, p. 346, pl. 15, figs. 21, 21a, 1891.

Two specimens: One from Tampico, Mexico, December 8 (E. A. Schwarz); one from Cacao, Trece Aguas, Alta Vera Paz, Guatemala, March 26 (Schwarz and Barber).

MORDELLISTENA BICINTELLA LeConte

Mordellistena bicinctella LECONTE, Proc. Acad. Nat. Sci. Philadelphia, vol. 14, p. 48, 1862.

Five specimens: All from Trece Aguas, Alta Vera Paz, Guatemala (Barber and Schwarz), on the following dates: December 12 (1), March 26 (1), April 5 (2), no date (1).

MORDELLISTENA RHENOLEPIS, new species

FIGURES 16, *c*; 18, *a*

This species is allied to *ozarkensis* Ray (1936a, p. 125) and may be separated from the latter member of the genus by the additional ridge on the posterior tibiae, the completely flavocastaneous condition of the head and pronotum, the more parallel form, and the longer, hammerlike distal segment of the maxillary palpi. Among the Central American forms *rhenolepis* is most closely allied to *beata* Champion (1891, p. 347) and may easily be separated by the unicolored pronotum, the difference in the number of comblike ridges on the posterior tibiae and tarsi, the different position of the basal cinereous vitta on the elytra, and the greater length of the fourth antennal segment.

Length: 2.3 mm.; including anal style, 3.2 mm. Form narrow, elongate, sides subparallel to within one-fourth of apex of elytra, broadest near base of pronotum. Head, pronotum, antennae, mouth parts, legs, last two ventral abdominal segments and anal style, middle of mesosternum and metasternum, and a rounded, oblique, subbasal spot on elytra reaching lateral margins but not suture, flavocastaneous; elytra, sides of mesosternum and metasternum, basal abdominal segments, and eyes, piceous-black. Body densely covered with fine, recumbent pubescence, partaking of ground color, except on elytra, where it forms the following whitish vittae: covering subbasal rounded spot mentioned above, and broad, transverse, postmedian vitta, reaching both lateral margins and suture, and prolonged anteriorly near suture to form a blunt, rounded area.

Antennae 0.7 mm. long, filiform, reaching metacoxae; segments 3 and 4 equal in length, latter somewhat broader; 5-10 each one-half longer and much broader than 4; 11 one-third longer than 10, sides and apex rounded, broadest postmedially. Distal segment of maxillary palpi enlarged, subrectangular, slightly narrower subapically, lateral margin slightly convex, mesal margin slightly concave, apical margin subangulate, corners at both apex and base rounded, two and two-thirds times as long as broad (fig. 16, *c*). Pronotum one-third broader than long (0.8 by 0.6 mm.), sides and apex rounded, basal angles obtuse, base arcuate, midbasal lobe short, but rounded. Scutellum moderately large, rounded-triangular, broader than long, sides and apical angle rounded. Elytra slightly more than twice as long as broad (1.7 by 0.8 mm.), sides broadest at base, subparallel to within a fourth of apex, thence strongly rounded, apices individually rounded. Intermediate tibiae and tarsi approximately equal in length; penultimate segment of anterior and intermediate tarsi short, filiform, simple. Posterior tibiae with two short, oblique ridges, neither extending more than one-third across outer surface; basitarsi with two short ridges extending one-third across outer surface. Tarsal claws with three long, acute, postmedian teeth (fig. 18, *a*). Anal style two and one-fourth times length of apical ventral segment (0.9 by 0.4 mm.), narrow, evenly attenuate to apex; last ventral segment about twice length of penultimate one.

Type locality.—Guatemala.

Type.—Male, U.S.N.M. No. 52938.

Remarks.—The type and two male paratypes, all with protruding genitalia, were taken at Washington, D. C., October 17, 1916, upon emergence from the rhizome of *Rhenolepis* sp. received from Guatemala (H. L. Sanford).

MORDELLISTENA HONDURENSIS, new species

FIGURE 16, *l*; 18, *b*

This species is most closely allied to *schwarzi*, new species, described below, and may be separated from the latter member of the genus by the difference in the maculation of the elytra, the difference in the breadth of antennal segments 3 and 4, the peculiar shape of the distal antennal segment, the additional tooth on the tarsal claws, and the peculiar condition of the penultimate segment of the anterior and intermediate tarsi. From *wanthopyga* Champion (1891, p. 344), which it resembles in color, it may be distinguished by the shorter length of the basal ridge of the posterior tibiae, the flavobrunneous condition of the pronotum, and the difference in the shape of the maxillary palpus.

Length: 0.9–1.15 mm.; including anal style, 1.15–1.55 mm. Form elongate, narrow, sides subparallel, narrowing only one-fourth from apex of elytra, broadest near middle of pronotum. Head (including antennae and mouth parts), pronotum, apex and middle of metasternum, last two ventral abdominal segments, and anal style, flavobrunneous; elytra piceous, with following flavous areas: a subtriangular, rounded, subbasal area reaching sides but not suture and a broad, transverse, postmedian fascia extending entirely across disk from lateral margins to suture. Surface densely covered with fine, recumbent pubescence, partaking of ground color, a mixture of flavous and piceous hairs on head and pronotum, giving these parts a darker tinge, except along margins.

Antennae 0.28–0.4 mm. long, reaching metacoxae, somewhat thickened but not serrate; segments 3 and 4 equal in length; 5–10 each almost as long as 3 and 4 together, and distinctly broader; 11 one-half longer than 10, broadest medially, outer edge straight, mesal margin rounded from middle to apex, the latter subacute. Distal segment of maxillary palpi enlarged, subquadrate, mesal margin straight, lateral and apical margins broadly rounded (fig. 16, *l*). Pronotum but slightly broader than long (0.28–0.35 by 0.25–0.3 mm.), sides rounded, basal angles obtuse, base arcuate, midbasal lobe short, rounded. Scutellum small, broadly triangular. Elytra slightly less than two and two-thirds times as long as broad (0.65–0.8 by 0.28–0.35 mm.), sides parallel to within one-fourth of apex, thence attenuate and broadly rounded to apex, apices individually rounded. Intermediate tibiae and tarsi equal in length; penultimate segment of anterior and intermediate tarsi filiform, excavate beneath, bearing fifth segment on middle of ventral surface. Posterior tibiae with two oblique ridges, basal one extending three-fourths, other one-half, across outer surface; basitarsi with two, second segment with one

oblique ridge, all extending halfway across outer surface. Tarsal claws with four distinct teeth, basal one shorter than others and obtuse (fig. 18, *b*). A single spur on posterior tibiae, thick, two-thirds as long as basitarsus. Anal style almost three times as long as apical ventral segment (0.28–0.4 by 0.1–0.15 mm.), fairly stout, attenuate to apex; last ventral segment but twice as long as penultimate one.

Type locality.—La Ceiba, Honduras.

Type.—Male, U.S.N.M. No. 52913.

Remarks.—The type was collected at La Ceiba, Honduras, August 25, 1916 (F. J. Dyer). A male paratype was taken at Peto, Yucatan, Mexico, August 9, 1925, at about 30 meters elevation, in a dense bush forest (A. Dampf). This latter specimen has the pronotum fuscopiceous, except for a small flavous area at middle of lateral margin, the seven apical segments are slightly darker than in the type, and the basal elytral spot is smaller, so that it does not reach the lateral margin. Structurally the paratype, even including the nature, disposition, and length of the teeth on the tarsal claws, is identical with the type.

MORDELLISTENA SCHWARZI, new species

FIGURES 16, *b* (♂), *d* (♀); 18, *d*

This species may be separated from both *diluta* Champion (1891, p. 338) and *emarginata*, new species, described below, by the complex maculation of the elytra, the very peculiar shape of the distal segment of the maxillary palpi in the male, the much greater length of the second over the first antennal segment, the equal length but greater width of segment 4 over segment 3, the longer comparative length of the apical ventral segment, and a distinct difference in the form of the tarsal claws.

Length: 1.07 mm.; including anal style, 1.5 mm. Elongate, narrow, sides subparallel, narrowing only one-fourth from apex of elytra, broadest at middle of pronotum. Head (including mouth parts and antennae), pronotum, and elytra, flavocastaneous, latter part with the following piceous areas: a triangular humeral patch, a Y-shaped sutural area at base narrowly connected to humeral patch, a broad marginal spot at middle extending halfway to suture, and an area covering apical sixth; ventral surface flavocastaneous, abdomen slightly darker (base and sides of mesosternum and sides of metasternum up to a point parallel with posterior coxae, piceocastaneous in female); ridges of posterior tibiae and tarsi piceous. Surface densely covered with fine, recumbent pubescence, partaking of ground color.

Antennae 0.35 mm. long, reaching middle of lateral prothoracic margin; segment 2 one-half longer than 1; 4 equal in length to 3 but broader; 5-10 filiform, each one-half longer than 4 and distinctly broader; 11 longer than 10, sides subparallel, rounded from apical third to apex. Distal segment of maxillary palpi enlarged, showing a sexually dimorphic form, viz: in male, two anteapical segments thickened, distal one oblong-ovate, sides subparallel, angles all rounded (fig. 16, *b*); in female, anteapical segments normal, thin, distal one with the form of an elongate scalene triangle, apical angle acute, mesal angle rounded, broadest at apical third (fig. 16, *d*). Eyes large, coarsely faceted, entire, without emargination. Pronotum slightly broader than long (0.32 by 0.26 mm.), apex and sides rounded, basal angles obtuse, base arcuate, midbasal lobe short, but rounded. Scutellum small, broadly triangular. Elytra about two and two-thirds times as long as broad (0.8 by 0.32 mm.), sides parallel to within one-fourth of apex, thence attenuate and broadly rounded to apex, apices individually rounded. Intermediate tibiae and tarsi long, equal in length; penultimate segment of anterior and intermediate tarsi simple. Posterior tibiae with two oblique ridges extending halfway across outer surface; basitarsi with two, second segment with one oblique ridge, all extending halfway across outer surface. Tarsal claws with three distinct teeth (fig. 18, *d*). A single spur visible on posterior tibiae, thick, three-fourths as long as basitarsus. Anal style three times as long as apical ventral segment (0.45 by 0.15 mm.), narrow, attenuate to apex; last ventral segment two and one-half times as long as penultimate one.

Type locality.—Paraiso, Canal Zone, Panama.

Type.—Male, U.S.N.M. No. 52914.

Remarks.—Both the type and allotype were taken at Paraiso, Canal Zone, Panama, January 25 and 30, 1911 (E. A. Schwarz). As noted above there exists a distinct sexual dimorphism in the difference of the color of the ventral surface and in the shape of the distal segment of the maxillary palpi.

MORDELLISTENA SPARSA Champion

Mordellistena sparsa CHAMPION, *Biologia Centrali-Americana*, Coleoptera, vol. 4, pt. 2, p. 335, pl. 15, figs. 4, 4a, 1891.

Five specimens: District Federale, Mexico (L. Conradt).

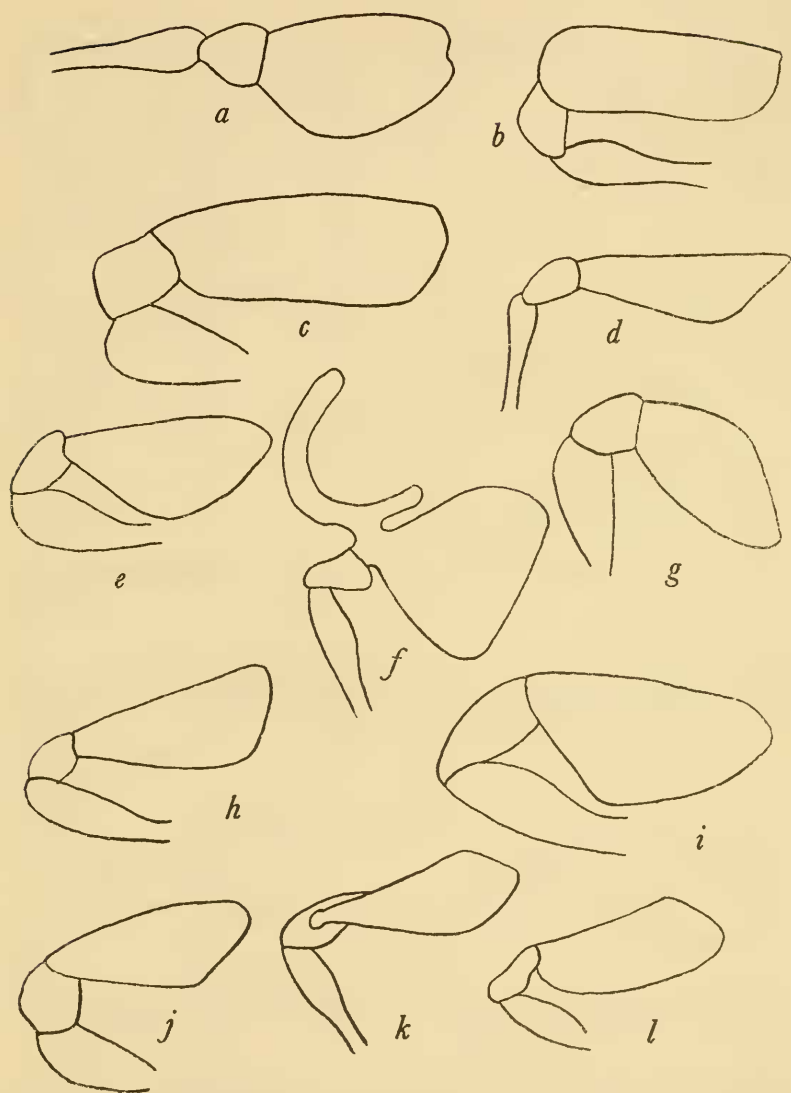


FIGURE 16.—Maxillary palpi of MORDELLA, MORDELLISTENA, GLIPODES, and TOMOXIA.

- a*, *Mordella haitiensis*, new species; *b*, *Mordellistena schwarzi*, new species, male; *c*, *M. rhenolepis*, new species; *d*, *M. schwarzi*, new species, female; *e*, *M. funerea* Champion; *f*, *Glipodex sericans* (Melsheimer), male; *g*, *Tomoxia serricornis*, new species; *h*, *Mordellistena laticornis*, new species; *i*, *M. boseni*, new species; *j*, *M. dampfi*, new species; *k*, *M. candelabra*, new species; *l*, *M. hondurensis*, new species.

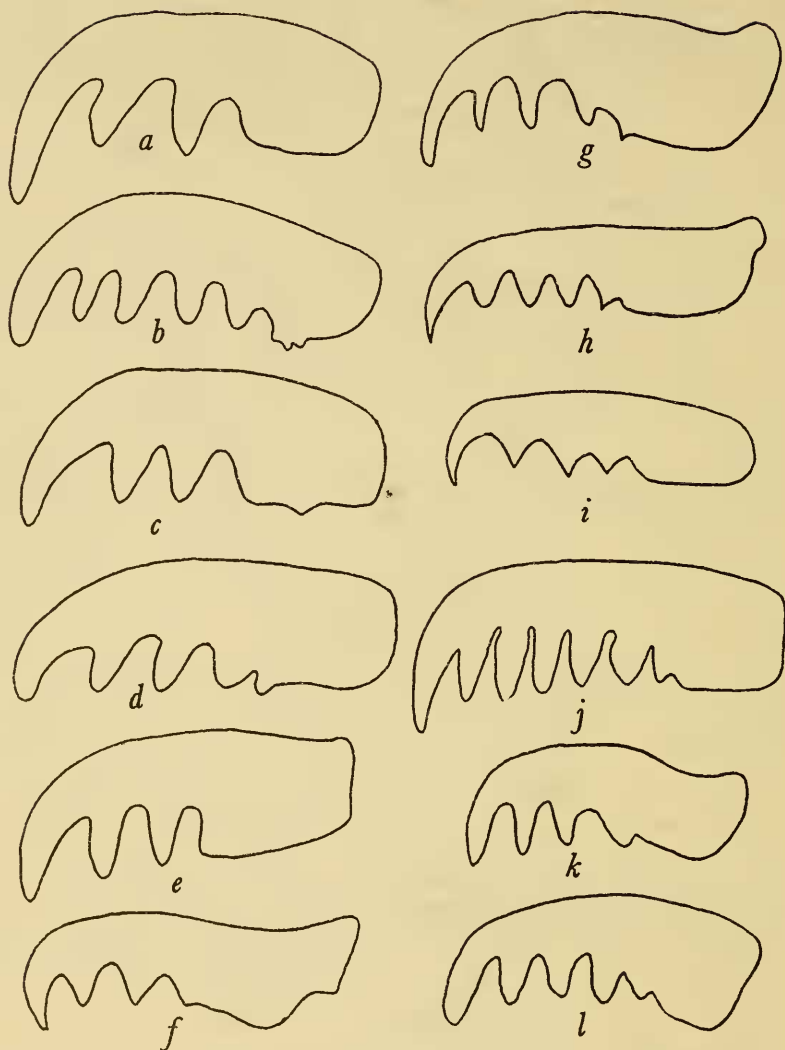


FIGURE 17.—Tarsal claws TOMOXIA, CALYCE, MORDELLOIDES, MORDELLA, and GLIPA.

a, *Tomoxia brevipennis*, new species; *b*, *T. bidentata* (Say); *c*, *T. binotata*, new species; *d*, *T. febrigi*, new species; *e*, *T. spinifer* Champion; *f*, *T. fulviceps* Champion; *g*, *Calyce maculata* Pic; *h*, *C. fulva* Champion; *i*, *Mordelloides acuticauda*, new genus and species; *j*, *Mordella 4-signata* Chevrolat; *k*, *Glipa hieroglyphica* Schwarz; *l*, *G. hilaris* (Say).

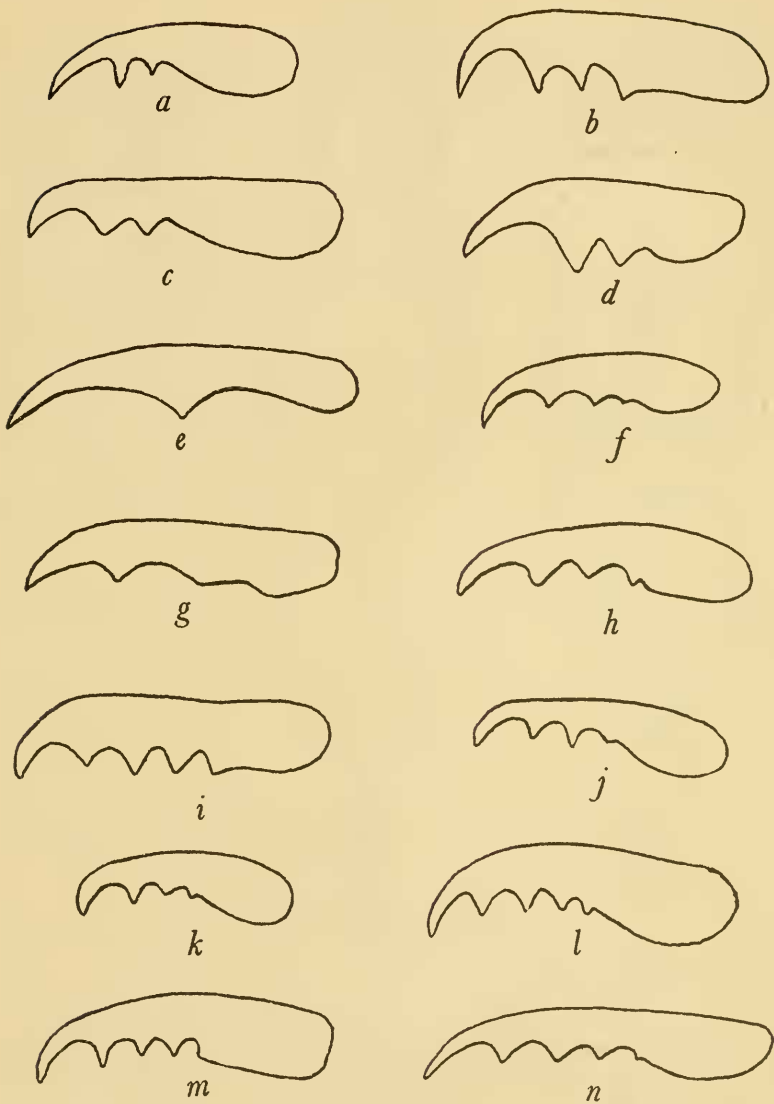


FIGURE 18.—Tarsal claws of MORDELLISTENA.

- a*, *Mordellistena rhenolepis*, new species; *b*, *M. hondurensis*, new species; *c*, *M. emarginata*, new species; *d*, *M. schwarzi*, new species; *e*, *M. dampfi*, new species; *f*, *M. sonorensis*, new species; *g*, *M. candelabra*, new species; *h*, *M. decora*, new species; *i*, *M. ornatipennis*, new species; *j*, *M. latipalpis*, new species; *k*, *M. laticornis*, new species; *l*, *M. boseni*, new species; *m*, *M. flavocollaris*, new species; *n*, *M. chiapensis*, new species.

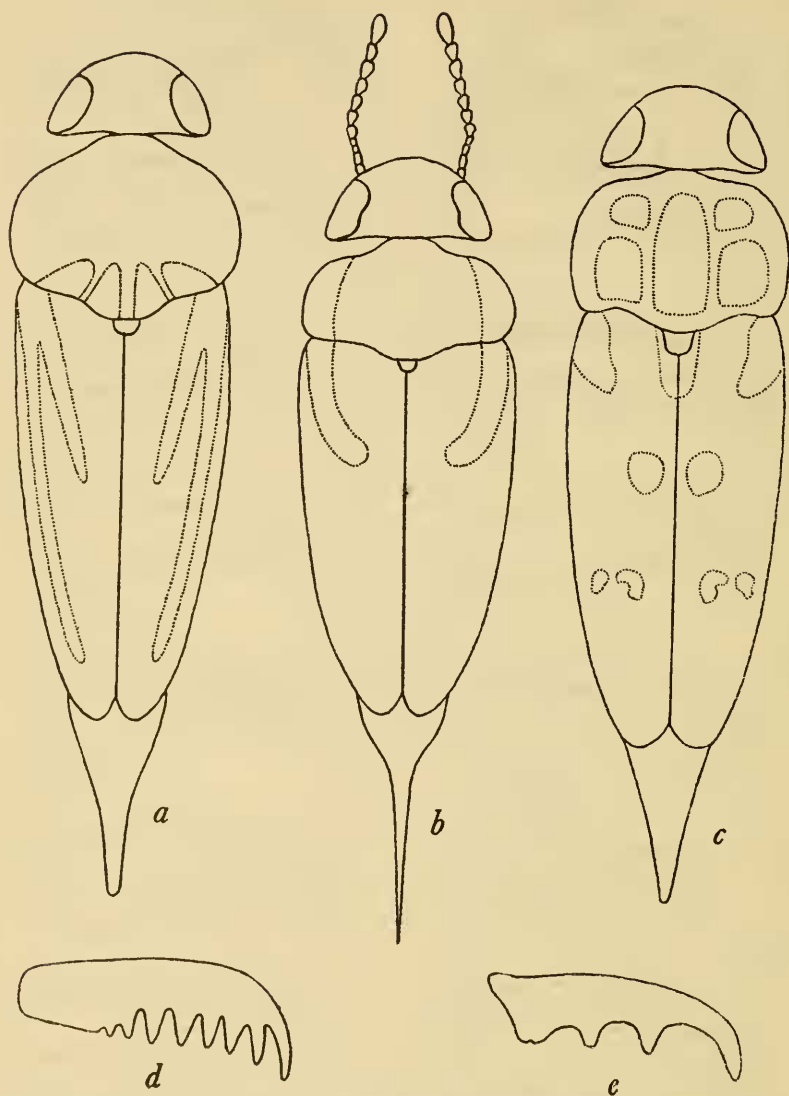


FIGURE 19.—Dorsal views of MORDELLA, MORDELLOIDES, and TOMOXIA, and tarsal claws of MORDELLA and MORDELLISTENA.

Dorsal view of: *a*, *Mordella divergens*, new species; *b*, *Mordelloides acuticauda*, new genus and species; *c*, *Tomoxia brevipennis*, new species. Tarsal claws of: *d*, *Mordella clavicornis* Kirby; *e*, *Mordellistena sepia*, new species.

MORDELLISTENA EMARGINATA, new species

FIGURE 18, c

This species is closely allied to *diluta* Champion (1891, p. 338) but may easily be separated from the latter member of the genus by the much smaller size, the equality in length between antennal segments 3 and 4, the filiform condition of segments 5-10, and the presence of an emargination at the frontal edge of the eye.

Length: 1.1 mm.; including anal style, 1.4 mm. Elongate, narrow, sides subparallel, narrowing only at apical fourth of elytra, broadest at middle of pronotum. Head (including antennae and mouth parts) and pronotum flavotestaceous, latter with a narrow, dark brown line along base and posterior half of lateral margin; elytra flavobrunneous, somewhat darker along suture and sides; ventral surface flavopiceous, three apical ventral segments flavobrunneous; anterior and intermediate legs flavotestaceous, posterior pair flavobrunneous; ridges of posterior tibiae and tarsi piceous. Surface densely covered with fine, recumbent pubescence, partaking of ground color except on dark areas of ventral surface, where it is flavous.

Antennae 0.35 mm. long, almost reaching base of abdomen; segments 3 and 4 small, equal; 5-10 filiform, each almost as long as 3 and 4 together, but each slightly broader than 4; 11 distinctly longer than 10, broadest at middle, rounded to apex. Distal segment of maxillary palpi enlarged, fairly robust, elongate-ovate, broadest at middle. Eyes large, coarsely granulated, with a distinct emargination on frontal edge near antennal declivity. Pronotum slightly broader than long (0.35 by 0.28 mm.), apex and sides rounded, basal angles obtuse, base arcuate, midbasal lobe moderately long, rounded. Scutellum small, broadly triangular. Elytra about two and one-half times as long as broad (0.8 by 0.28 mm.), sides parallel to within one-fourth of apex, thence attenuate and broadly rounded to apex, apices individually rounded. Intermediate tibiae and tarsi equal in length; penultimate segment of anterior and intermediate tarsi simple. Posterior tibiae with two oblique ridges extending halfway across outer surface; basitarsi with two, second segment with one oblique ridge, all extending halfway across outer surface. Tarsal claws with three distinct teeth and a premedian, blunt, very small elevation (fig. 18, c). Outer spur of posterior tibiae three times as long as inner one. Anal style three times as long as apical ventral segment (0.3 by 0.1 mm.), narrow, attenuate to apex; last ventral segment but slightly longer than penultimate one.

Type locality—La Ceiba, Honduras.

Type.—A unique male, U.S.N.M. No. 52915, taken on October 18, 1916, by F. J. Dyer.

MORDELLISTENA TESSELLATA Champion

Mordellistena tessellata CHAMPION, *Biologia Centrali-Americana*, Coleoptera, vol. 4, pt. 2, p. 336, pl. 15, figs. 5, 5a, 1891.

Five specimens: One from Antigua, Guatemala, May 2, 1926 (J. M. Aldrich); one from Monterey, Nuevo Leon, Mexico, November 25, 1909 (F. C. Bishopp); two from Coapa, District Federale, Mexico, June 12, 1922 (E. G. Smyth); one from Mexico City, Mexico (O. W. Barrett).

MORDELLISTENA DAMPFI, new species

FIGURES 16, *j*; 18, *e*

This species is allied to *diluta* Champion (1891, p. 338) and may be separated from the latter member of the genus by the black head, the equality in length between antennal segments 3 and 4, the elongate-triangular shape of the distal segment of the maxillary palpi, the much smaller size, and the peculiar condition of the tarsal claws.

Length: 0.8 mm.; including anal style, 1.18 mm. Form elongate, narrow, sides subparallel, narrowing approximately one-fourth from apex of elytra, broadest near middle of pronotum. Head piceous black, thorax, elytra, antennae, mouth parts, and legs, flavocastaneous, sides of mesosternum and metasternum and abdomen (except anal style and apical ventral segment) piceocastaneous. Body densely covered with fine, recumbent, flavous pubescence, thickest on anal style, where it gives this structure a coarse appearance.

Antennae 0.25 mm. long, slender, filiform; segments 3 and 4 equal in length, latter distinctly broader of two; 5-10 each as long as 3 and 4 together, each twice as thick as 3, with straight sides; 11 distinctly longer than 10, apically rounded. Distal segment of maxillary palpi enlarged, with form of an elongate scalene triangle, sides straight, corners rounded (fig. 16, *j*). Pronotum distinctly broader than long (0.25 by 0.2 mm.), sides rounded, basal angles obtuse, base arcuate, midbasal lobe short, rounded. Scutellum small, broadly triangular. Elytra two and one-third times as long as broad (0.6 by 0.26 mm.), sides parallel to within a fourth of apex, thence attenuate and broadly rounded to apex, apices individually rounded. Intermediate tibiae and tarsi equal in length; penultimate segment of anterior and intermediate tarsi dilated, excavate beneath, bearing fifth segment on middle of its ventral surface. Posterior tibiae with two oblique ridges, basal one extending slightly more than half distance across outer surface; basitarsi with three (basal one rudimentary), second segment with one oblique ridge. Tarsal claws with but two teeth, distal one long, acute, terminal, other one broad, short, median, the two sides forming a right angle (fig. 18, *e*). Outer spur

of posterior tibiae twice as long as inner one. Anal style almost three times length of apical ventral segment (0.28 by 0.1 mm.), stout, dorsal surface rounded to apex, latter acute, bearing several short, black bristles; ventral surface straight; last ventral segment but twice as long as penultimate one.

Type locality.—Paraiso, Canal Zone, Panama.

Type.—A unique male, U.S.N.M. No. 52919, collected on April 22, 1911 (E. A. Schwarz).

Remarks.—This species is named for Dr. A. Dampf, chief entomologist of the Mexican Department of Agriculture, who so largely contributed to the possibility of this work by sending an assortment of 802 specimens collected over a period of years.

MORDELLISTENA AZTECA Champion

Mordellistena azteca CHAMPION, Biologia Centrali-Americana, Coleoptera, vol. 4, pt. 2, p. 334, pl. 15, figs. 3, 3a, 1891.

Seventeen specimens: San Rafael, Jicaltepec, Veracruz, Mexico (Townsend).

MORDELLISTENA LUTEIFRONS Champion

Mordellistena luteifrons CHAMPION, Biologia Centrali-Americana, Coleoptera, vol. 4, pt. 2, p. 330, pl. 14, fig. 24a, 1891.

Five specimens: All from District Federale, Mexico, July 11, 1924, on *Arracia multifida* (A. Dampf).

MORDELLISTENA CANDELABRA, new species

FIGURES 16, *k*; 18, *g*

This species is most closely allied to *wanthopyga* Champion (1891, p. 344) and may be separated from the latter member of the genus by the difference in color pattern, the peculiar shape of the distal segment of the maxillary palpi, the longer length of the third antennal segment, and the presence of but a single spur at the apex of the posterior tibiae.

Length: 1.82 mm.; including anal style, 2.38 mm. Elongate, narrow, sides subparallel; body flavocastaneous, eyes and ridges on posterior tibiae and tarsi fuscocastaneous, elytra and ventral abdominal segments (except distal segment) piceocastaneous. Surface covered with fine, recumbent, uniform pubescence, partaking of ground color, with contrasting areas on elytra, as follows: a broad humeral patch extending obliquely into disk and reaching suture; a broad, transverse, postmedian band; and a broad sutural line connecting the preceding two.

Antennae 0.48 mm. long, reaching base of lateral pronotal margin; segments 1 and 2 large, equal; 3 distinctly longer but narrower than

4; 5-10 each successively shorter and narrower than preceding; 11 as long as 1, spindle-shaped, broadest subbasally, attenuate to apex. Distal segment of maxillary palpi enlarged, elongate, with form of a scalene triangle, sides and apex but slightly rounded (fig. 16, *k*). Pronotum but slightly broader than long (0.56 by 0.52 mm.), apex and sides rounded, basal angles obtuse, base arcuate, midbasal lobe short, rounded. Scutellum small, triangular. Elytra two and four-tenths times as long as broad (1.26 by 0.52 mm.), sides gradually narrowing to within one-fourth of apex, where they become broadly rounded, apices individually rounded. Penultimate segment of anterior and intermediate tarsi filiform. Posterior tibiae with a short subapical ridge, a short median one, and a long oblique one extending entirely across outer surface near basal articulations; basitarsi with two short, oblique ridges, each very oblique; second segment with one short, oblique ridge. Tarsal claws with two distinct, broad teeth, distal one longest, and a small, blunt, median elevation on concave surface (fig. 18, *g*). Outer spur of posterior tibiae more than half as long as basitarsus; inner spur lacking. Anal style two and two-thirds times as long as apical ventral segment (0.55 by 0.2 mm.), narrow, evenly attenuate to apex.

Type locality.—Panama City, Panama.

Type.—Male, U.S.N.M. No. 52939.

Remarks.—Seven specimens: The type and a male paratype were taken at Panama City, Panama, April 12 (A. H. Jennings); the allotype and two female paratypes were taken at Paraiso, Canal Zone, Panama, on January 17, 1911, and April 18, 1911, respectively (E. A. Schwarz); a female paratype was taken at Pedro Miguel, Canal Zone, Panama, April 17, 1911 (E. A. Schwarz).

I have been unable to find the shorter spur of the posterior tibiae in any of the seven specimens at hand; in the absence of any damage to the series this peculiarity is unaccountable. If this is the normal case for this and several other species, it is the first occurrence of such an omission in the family.

The males of *candelabra* are darker than the females, with ventral surface of abdomen a uniform piceocastaneous (except distal segment).

MORDELLISTENA XANTHOPYGA Champion

Mordellistena xanthopyga CHAMPION, Biologia Centrali-Americana, Coleoptera, vol. 4, pt. 2, p. 344, 462, pl. 15, figs. 18, 18a, 1891.

One specimen: Paraiso, Canal Zone, Panama, April 26, 1911 (E. A. Schwarz).

MORDELLISTENA TIARA Ray

Mordellistena tiara RAY, Can. Ent., vol. 68, p. 127, pl. 9, figs. 2, 5, 8, 1936.

One specimen: Tampico, Mexico, December 14 (E. A. Schwarz).

MORDELLISTENA SONORENSIS, new species

FIGURE 18, *f*

This species is most closely allied to *funerea* Champion (1891, p. 343) and may be separated from the latter member of the genus by the bicolored antennae, the much shorter, distal segment of the maxillary palpi, the longer antennae, the larger size, the oval form of the body, and the emarginate anterior margin of the compound eye.

Length: 2.4 mm.; including anal style, 3.2 mm. Form elongate, narrow, sides rounded, subovate, elytra broadest at base, distinctly narrowing and rounded caudad. Derm piceous black, five distal segments of antennae and anterior and intermediate legs fuscous, basal six segments of antennae and mouth parts flavocastaneous. Body densely covered with fine, recumbent, yellowish-white pubescence, except on castaneous parts, where it partakes of ground color.

Antennae 1.5 mm. long, reaching to posterior coxae; segments 3 and 4 very short, equal; 5-10 each as long as 3 and 4 together and distinctly broader; 11 distinctly longer than 10, sides and apex rounded, broadest medially. Distal segment of maxillary palpi enlarged, with form of a scalene triangle, lateral margin almost straight, corners, and mesal and apical margins distinctly rounded, broadest premedially. Eyes coarsely faceted, distinctly emarginate on anterior margins. Prothorax four-tenths broader than long (0.7 by 0.5 mm.), sides and apex rounded, basal angles obtuse, base arcuate, midbasal lobe short, but rounded. Scutellum short, subtriangular, sides and apex rounded, broader than long. Elytra two and two-thirds times as long as broad (1.9 by 0.7 mm.), broadest at base, sides distinctly rounded to apex, curvature greatest on apical fourth, apices individually rounded. Intermediate tarsi distinctly longer than their tibiae; penultimate segment of anterior and intermediate tarsi simple, filiform. Posterior tibiae with two oblique ridges, basal one extending entirely across outer face, the other halfway; basitarsi with three, second segment with two oblique ridges, each extending halfway across outer surface. Tarsal claws with four teeth, distal one long, acute, two intermediate ones short, their sides almost forming right angles, the proximal, subbasal one rudimentary (fig. 18, *f*). Only a single spur visible at apex of posterior tibiae, one-half length of basitarsus. Anal style short, fairly stout, but one-half longer than apical ventral segment (0.75 by 0.5 mm.), evenly attenuate to apex; apical ventral segment almost twice length of penultimate one.

Type locality.—Nainari, Sonora, Mexico.

Type.—A unique male, U.S.N.M. No. 52940, collected on August 19, 1927, on grass in ricefield (A. Dampf).

MORDELLISTENA DECORA, new species

FIGURE 18, *h*

This species is closely allied to *flicornis* Champion (1891, p. 342), but may easily be separated from the latter member of the genus by the greater length of the fourth antennal segment, the shorter, bicolored antennae, and the broader, much shorter distal segment of the maxillary palpi.

Length: 3.7 mm.; including anal style, 5 mm. Form narrow, elongate, sides subparallel, but slightly narrowing caudad until apical fourth of elytra, broadest near base of pronotum. Head, pronotum, anterior and intermediate legs, four basal segments of antennae and spurs of posterior tibiae, castaneous; elytra, eyes, and ventral surface piceous, seven distal segments of antennae and posterior legs piceocastaneous. Body densely covered with fine, recumbent pubescence, partaking of ground color on castaneous parts, yellowish white elsewhere, short and indistinct on eyes.

Antennae 1.2 mm. long, almost reaching base of lateral pronotal margin; segment 4 slightly longer and broader than 3; 5-10 each one-half longer and distinctly thicker than 4, not serrate, however, broadest subapically; 11 large, one-half longer than 10, sides and apex rounded, broadest postmedially. Distal segment of maxillary palpi enlarged, form of a broad, scalene triangle, lateral margin straight, corners and other two sides rounded. Pronotum but slightly broader than long (1.1 by 1 mm.), sides rounded, basal angles obtuse, base arcuate, midbasal lobe short, subtruncate. Scutellum small, broadly triangular, sides straight, apical angle rounded. Elytra almost two and one-half times as long as broad (2.7 by 1.1 mm.), sides gently narrowing on basal three-fourths, thence broadly rounded to apex, apices individually rounded. Intermediate tarsi distinctly longer than their tibiae; penultimate segment of anterior and intermediate tarsi short, filiform. Posterior tibiae with two oblique ridges, basal one extending entirely across outer surface, the other halfway; basitarsi with three, second segment with two oblique ridges, each extending halfway across outer surface. Tarsal claws with four teeth, three acute and long, fourth short, blunt, premedian (fig. 18, *h*). Outer spur of posterior tibiae two and one-half times as long as inner one. Anal style two and six-tenth times length of apical ventral segment (1.3 by 0.5 mm.), narrow, attenuate to apex; last ventral segment slightly more than twice length of penultimate one.

Type locality.—Centinela, Colima, Mexico.

Type.—A unique male, U.S.N.M. No. 52941, collected on January 28, 1930, on cotton (A. Dampf).

MORDELLISTENA FLAVICORNIS Champion

Mordellistena flavicornis CHAMPION, Biologia Centrali-Americana, Coleoptera, vol. 4, pt. 2, p. 342, pl. 15, fig. 15, 1891.

One specimen: Juan Mina Plantation, Canal Zone, Panama, July 13, 1928, swept from grass and cowpeas (H. J. Dietz and J. Zetek).

MORDELLISTENA MUTABILIS Champion

Mordellistena mutabilis CHAMPION, Biologia Centrali-Americana, Coleoptera, vol. 4, pt. 2, p. 339, pl. 15, figs. 9-11, 1891.

Eight specimens: Six from Cordoba, Veracruz, Mexico, (3) April 30, (1) May 5, and (2) May 17, 1908 (A. Fenyès); two from Cacao, Trece Aguas, Alta Vera Paz, Guatemala, March 30 and April 29 (Schwarz and Barber).

MORDELLISTENA ORNATIPENNIS, new species

FIGURE 18, *i*

This species is most closely allied to *basimacula* Champion (1891, p. 341) and may be separated from the latter member of the genus by the shorter, broader, terminal segment of the maxillary palpi and the two long ridges of the posterior tibiae.

Length: (male) 2.25 mm., (female) 2.75 mm.; including anal style, (male) 3.25, (female) 3.75 mm. Elongate, narrow, sides subparallel; head fuscocastaneous; pronotum fuscocastaneous with a large, rounded, castaneous spot on each side at middle; elytra fuscopiceous, with an oblique, narrow, castaneous, humeral spot extending obliquely toward suture and separated from latter by less than its own width; front and middle legs and anal style castaneous, ventral surface and posterior legs fuscopiceous. Surface densely covered with fine, recumbent, flavous pubescence.

Antennae 0.7 mm. long, reaching posterior coxae; segments 3 and 4 equal; 5 to 10 each almost as long as 3 and 4 together; 11 rounded, one-third longer than 10. Distal segment of maxillary palpi enlarged, subtriangular, outer margin straight, corners rounded, apical and inner margins curved. Pronotum as long as broad, apex and sides rounded, basal angles obtuse, base arcuate, midbasal lobe short, rounded. Scutellum small, triangular, apical angle rounded. Elytra three times as long as broad (1.75 by 0.58 mm.), sides parallel to within one-fourth of apex, apices individually rounded. Penultimate segment of anterior and intermediate tarsi dilated. Posterior tibiae with a short subapical ridge and two long, oblique ridges, each extending entirely across outer surface; basitarsi with three oblique ridges, each extending two-thirds across outer surface; second segment with two ridges, each almost completely spanning articulation. Tarsal claws with four rather thick, blunt teeth, distal one longest.

proximal, median one broad, the sides forming a right angle (fig. 18, *i*). Anal style more than three times as long as apical ventral segment, narrow, attenuate to apex.

Type locality.—Paraiso, Canal Zone, Panama.

Type.—Male: U.S.N.M. No. 52916.

Remarks.—The type was taken at Paraiso, Canal Zone, Panama, January 17, 1911 (E. A. Schwarz), the allotype at Pedro Miguel, Canal Zone, Panama, April 17, 1911 (A. H. Jennings); and a male paratype at Palo Seco, Trinidad, October 20, 1918 (H. Morrison).

The two long ridges of the posterior tibiae in this species is the first record of such an occurrence in any member of the family and this character alone will separate *ornatipennis* from any species recorded in the "Biologia." The castaneous humeral spot is variable in size and in the paratype extends the length of the elytra, leaving only a narrow, piceous, sutural and marginal line.

MORDELLISTENA GRACILIFORMIS, new species

This species is mostly closely allied to *4-fasciata* Champion (1891, p. 337), a Mexican form, but may easily be separated from the latter member of the genus by the completely black dermal color, the smaller, more irregular pubescent patches on the pronotum and elytra, and by the shorter distal segment of the maxillary palpi.

Length: 2.75 mm.; including anal style, 3.65 mm. Elongate, subparallel; dermal color entirely black. Surface densely covered with fine, yellowish-white pubescence, dense on pronotum and elytra, where it forms a number of irregular, broken, transverse fasciae.

Antennae 1 mm. long, reaching basal abdominal segment; segment 4 equal in length to 3, but slightly broader; 5–10 each one-half longer than 4 and considerably broadened; 11 rounded, but little longer than 10. Distal segment of maxillary palpi enlarged, broadly triangular, rounded on mesal edge and apex. Prothorax slightly broader than long (0.8 by 0.75 mm.), sides rounded, base arcuate, midbasal lobe short, subtruncate. Scutellum small, triangular, apical angle rounded. Elytra twice as long as broad (2 by 1 mm.), sides gradually narrowing from broadest posthumeral position to apex, apices individually rounded. Tarsal claws with three teeth, all short, blunt, proximal one situated medially. Posterior tibiae with two oblique ridges extending halfway across outer surface; basitarsi with three, second segment with two oblique ridges, all extending halfway across outer surface. Anal style three times as long as apical ventral segment (0.9 by 0.3 mm.), narrow, attenuate to apex, sides straight; last ventral segment but twice length of penultimate one.

Type locality.—Coliseo, Cuba.

Type.—Male, U.S.N.M. No. 52917.

Remarks.—The type and a male paratype were collected at Coliseo, Province of Matanzas, Cuba, June 15, 1934 (S. T. Danforth). The allotype and a female paratype were collected at Central Jaronu, Cuba, June 2, 1930, on weeds and grasses (L. C. Scaramuzza) and Central Jagueyal, Cuba, June 30, 1927, on grasses (L. C. Scaramuzza).

MORDELLISTENA LATIPALPALIS, new species

FIGURE 18, *j*

This species is rather closely allied to *aequinoctialis* Champion (1891, p. 311) but may be separated from the latter member of the genus without difficulty by means of the much smaller size, the different character of the antennal segments, the broader terminal segment of the maxillary palpi of the male, and the general difference in color.

Length: 2.95 mm.; including anal style, 4.15 mm. Form elongate, narrow, sides subparallel, attenuate, and gradually rounded caudad from middle of elytra. Dermal color dark fuscocastaneous, legs, except posterior femora, maxillary palpi, antennae, two basal segments lighter, apex of front, and clypeus, flavocastaneous. Surface rather densely covered with fine, recumbent, yellowish-white pubescence, densest on elytra, abdomen, and anal style; eyes sparsely covered with short, whitish hairs.

Antennae 1 mm. long, slender, reaching intermediate coxae; segments 1 and 2 subequal; 3 and 4 equal in length, narrow; 5-10 each one-third longer and broader than 4, lateral margins straight, mesal margins curved, broadest at apex; 11 one-half longer than 10, sides and apex rounded, broadest medially. Distal segment of maxillary palpi enlarged, somewhat pear-shaped, broad, mesal margin straight, lateral margin and apex broadly rounded, greatest width on apical third. Pronotum distinctly broader than long (0.95 by 0.85 mm.), apex and sides rounded, basal angles subacute, forming a right angle, base arcuate, midbasal lobe moderately produced, subtruncate. Scutellum broadly subtriangular, broader than long, apex abruptly transversely truncate, angles obtuse. Elytra distinctly more than twice as long as broad (2.1 by 0.95 mm.), sides subparallel on basal half, narrowly attenuate caudad, broadly rounded on caudal fourth, apices individually rounded. Hind tibiae with two oblique ridges extending halfway across outer surface; basitarsi with three, second segment with two oblique ridges, all extending halfway across outer surface. Tarsal claws with four teeth, the distal three long, acute, postmedian, proximal one short, blunt, and median in position (fig. 18, *j*). Anal style elongate, narrow, attenuate to apex, three times length of apical ventral segment (1.2 by 0.4 mm.); last ventral segment three times as long as penultimate one.

Type locality.—Plancha Piedra, between British Honduras and Guatemala.

Type.—Male, U.S.N.M. No. 52942.

Remarks.—The single male at hand was collected at Plancha Piedra, on the border between British Honduras and Guatemala, in the Peten Department, October 27, 1925, swept from weeds (A. Dampf).

MORDELLISTENA LATICORNIS, new species

FIGURE 16, *h*; 18, *k*

This species is most closely allied to *hexastigma* Champion (1891, p. 321) and may be separated from the latter member of the genus by the unicolored antennae, the different nature and position of the spots on the elytra, the much greater length and breadth of the fourth antennal segment, the different shape of the distal segment of the maxillary palpi, the small number of comblike ridges on the posterior tibiae and tarsi, and the smaller size.

Length: 2.5 mm.; including anal style, 3.45 mm. Form moderately robust, subcuneate, elytra broadest at base, thence narrowing to apex, body broadest near base of pronotum. Head, pronotum, antennae, mouth parts, spurs of posterior tibiae, and legs, except posterior femora, flavocastaneous; ventral surface, except last ventral segment and base of anal style, and elytra, piceous black, the elytra with a castaneous, semilunate, humeral fascia, curving posteriorly and mesad, not reaching suture and extending one-fourth into disk; posterior femora, last ventral segment, and base of anal style fuscocastaneous. Body densely covered with fine, recumbent pubescence, partaking of ground color on castaneous areas, whitish yellow on ventral surface, black on elytra, except for following whitish areas: a semilunate fascia overlying castaneous dermal spot mentioned above, a broad, transverse, postmedian fascia, interrupted at suture and not quite reaching lateral margins, and a short area covering the extreme apex.

Antennae 1.1 mm. long, reaching basal abdominal segment; segment 4 one-half longer and much broader than 3; 5–10 each one third longer than 4, broad, flattened, but not serrate, broadest subapically; 11 distinctly longer than 10, sides and apex rounded, broadest medially. Distal segment of maxillary palpi enlarged, form of an elongate scalene triangle, outer margin straight, mesal and apical edges and corners rounded, broadest at apical third (fig. 16, *h*). Pronotum distinctly broader than long (0.85 by 0.7 mm.), sides and apex rounded, basal angles obtuse, base arcuate, midbasal lobe short, but rounded. Scutellum moderately large, triangular, sides straight, apical angle rounded. Elytra slightly more than twice as long as broad (1.8 by

0.85 mm.), sides broadest at base, evenly attenuate to apex, apices individually rounded. Intermediate tibiae and tarsi approximately equal in length; penultimate segment of anterior and intermediate tarsi dilated, emarginate at apex, bearing distal segment on its ventral surface. Posterior tibiae with two and a rudimentary third oblique ridge, each extending approximately halfway across outer surface; basitarsi with three, second segment with two oblique ridges, each extending halfway across outer surface. Tarsal claws with four teeth, two distal ones long, acute, two proximal ones short, blunt (fig. 18, *k*). Outer spur of posterior tibiae almost twice length of inner one. Anal style slightly more than twice length of apical segment (0.95 by 0.45 mm.), rather stout at base, evenly attenuate to apex; last ventral segment almost three times length of penultimate one.

Type locality.—Tegucigalpa, Honduras.

Type.—A unique male, U.S.N.M. No. 52912, taken on March 31, 1917, by F. J. Dyer.

MORDELLISTENA SEPIA, new species

FIGURE 19, *e*

This species is most closely allied to *tabascana* Champion (1891, p. 330) and may be separated from the latter member of the genus by a distinct difference in color and pubescent maculation, the shorter form and the isosceles condition of the distal segment of the maxillary palpi, the greater length of the fourth antennal segment, and the oddly shaped scutellum.

Length: 1.5 mm.; including anal style, 2 mm. Form moderately elongate, robust, sides attenuate beyond basal third of elytra, broadest near base of pronotum. Derm warm sepiceous in color, meso- and metasternum and anal style piceocastaneous. Body densely covered with fine, recumbent, flavobrunneous pubescence, partaking of ground color in the following areas: a somewhat rounded spot on middle of disk of pronotum, a subbasal, subsutural spot extending to middle of elytra, produced posteriorly and recurved anterolaterad, but not reaching lateral margins; and a broad, transverse, arcuate band reaching neither suture nor lateral margins and produced anteriorly, almost touching previously mentioned subsutural line.

Antennae 0.7 mm. long, reaching base of abdomen, filiform, slender, segment 4 twice as long and much broader than 3; 5-10 but slightly longer than 4 and subequal in length and width; 11 slightly longer than 10, broadest at apical third, thence rounded to apex. Distal segment of maxillary palpi enlarged, with form of an elongate scalene triangle, apical margin and angles rounded, mesal and lateral margins straight. Pronotum slightly broader than long (0.47 by

0.37 mm.), sides rounded, base arcuate, midbasal lobe short, rounded. Scutellum subangulate, base straight, sides convex, very obtusely angulate, apical angle acute. Elytra twice as long as broad (1.02 by 0.53 mm.), sides attenuate and narrowing from basal third to apex, apices broadly, individually rounded. Intermediate tibiae and tarsi subequal in length; antepenultimate segment of anterior and intermediate tarsi short, slightly broadened, penultimate segment dilated, excavate beneath. Posterior tibiae with three subequal, oblique ridges extending halfway across outer surface; basitarsi with three, second segment with two oblique ridges, all extending halfway across outer surface. Tarsal claws with three distinct, acute teeth. Outer spur of posterior tibiae twice as long as inner one. Anal style three times as long as apical ventral segment (0.5 by 0.16 mm.), moderately robust, attenuate to apex.

Type locality.—La Ceiba, Honduras.

Type.—A unique male, U.S.N.M. No. 52920, collected on August 23, 1916, by F. J. Dyer.

MORDELLISTENA BOSENI, new species

FIGURES 16, *i*; 18, *l*

This species bears close resemblance to both *infima* LeConte (1863a, p. 49) and *tiara* Ray (1936a, p. 127), but may easily be separated from either of these members of the genus by the black, enclosed area of pubescence on the elytra, the bicolored antennae and legs, the larger size, the larger number of comblike ridges on the posterior tibiae and tarsi, the larger size, and the greater length of the fourth antennal segment.

Length: 3.3 mm.; including anal style, 4.55 mm. Form narrow, elongate, sides subparallel, narrowing from apical fourth of elytra, broadest near base of pronotum. Derm piceous black, apical margins of abdominal segments a shining, castaneous color, basal four segments of antennae, mouth parts, anterior legs, and spurs of posterior tibiae, flavocastaneous. Body densely covered with fine, recumbent pubescence, a distinct yellowish-greenish white, condensed on elytra to form the following fasciae: a broad humeral area curving posteromesad and reaching suture; a narrow line along base, embracing scutellum and continuing along entire length of suture; an irregular, transverse, postmedian band broadening laterally and extending along lateral margins to reach both humeral area and an apical fascia; apical sixth of elytra, longest basally near suture, pubescence between these areas consisting chiefly of dark, fuscopiceous hairs.

Antennae 1.2 mm. long, reaching posterior coxae; segment 4 one-half longer than 3; 5-10 each one-third longer and considerably

broader than 4, broadest subapically; 11 one-half longer than 10, mesal edge, apex and corners rounded, broadest postmedially. Distal segment of maxillary palpi enlarged, with form of a scalene triangle, broad, lateral margin straight, other edge and corners rounded (fig. 16, *i*). Pronotum four-tenths broader than long (1.1 by 0.8 mm.), sides and apex rounded, basal angles obtuse, base arcuate, midbasal lobe short, distinctly truncate. Scutellum moderately large, triangular, sides straight, apical angle rounded. Elytra two and three-tenths times as long as broad (2.5 by 1.1 mm.), sides subparallel on basal three-fourths, thence broadly rounded to apex, apices individually rounded. Intermediate tarsi longer than their tibiae; penultimate segment of anterior and intermediate tarsi dilated, emarginate at apex, bearing the distal segment on its ventral surface. Posterior tibiae with three short, oblique ridges, each extending less than half-way across outer surface; basitarsi with four, second segment with two oblique ridges, each extending less than halfway across outer surface. Tarsal claws with four teeth, all long, acute (fig. 18, *l*). Outer spur of posterior tibiae twice length of inner one. Anal style two and one-half times length of apical ventral segment (1.25 by 0.5 mm.), slender, attenuate to apex; last ventral segment three times length of penultimate one.

Type locality.—San Cristobal, Chiapas, Mexico.

Type.—Male, U.S.N.M. No. 52943.

Remarks.—The type was taken at San Cristobal, Chiapas, Mexico, July 7, 1926, by sweeping, at 2,200 meters elevation (A. Dampf); a male paratype was taken at Cerro Ecatepec, Chiapas, Mexico, June 24, 1926, on shrubs, at 2,400 meters elevation (A. Dampf).

MORDELLISTENA FLAVOCOLLARIS, new species

FIGURE 18, *m*

This species is most closely allied to *sanguinicollis* Champion (1891, p. 320) and may be separated from the latter member of the genus by the difference in the pattern of the elytral pubescence, the equality in length between antennal segments 3 and 4, the broader distal segments of the same, the difference in the color of the ventral surface, legs, and antennae, and the smaller number of comblike ridges on the posterior tibiae.

Length: 3.6 mm.; including anal style, 4.7 mm. Form moderately robust, sides attenuate, narrowing slightly but visibly from base of elytra posteriorly, broadly rounded from apical fourth of elytra to apex, apices individually rounded, broadest near base of pronotum. Head, except clypeus, and elytra, piceous black; pronotum castaneous, with an indefinite dorsal cloud on posterior half of disk; antennae, mouth parts, anterior legs, caudal margins of metasternum and

abdominal segments, last one entirely, flavocastaneous; intermediate and posterior legs piceocastaneous. Body covered with fine, recumbent pubescence, whitish on all parts of body except pronotum, where it is distinctly yellowish and on apical half of anal style, where it is piceous; condensed on elytra to form the following whitish spots: an indefinite area along base and embracing humeri, with two black areas enclosed, a sutural line continuing for two-thirds length, a postmedian band extending from suture almost to lateral margin and broadened anteriorly and posteriorly for a short distance at latter point, and a small, irregular, apical area.

Antennae 1.5 mm. long, filiform, distal segments fairly stout; segments 3 and 4 equal in both length and width; 5-10 each one-half longer and much broader than 4, distinctly longer than broad, broadest at distal end; 11 one-half longer than 10, rounded on sides and apex, broadest medially. Distal segment of maxillary palpi enlarged, with form of a broad isosceles triangle, thick, lateral and mesal surfaces noticeably convex, angles rounded. Pronotum distinctly broader than long (1.3 by 0.9 mm.), sides and apex rounded, basal angles obtuse, midbasal lobe short, rounded. Scutellum small, subtriangular, corners and apex broadly rounded, so as to indicate a subtruncate appearance. Elytra slightly more than twice as long as broad (2.7 by 1.3 mm.), sides attenuate, broadest at base, gently narrowing from latter point to three-fourths length, where it becomes broadly rounded to apex, apices individually rounded. Intermediate tibiae and tarsi equal in length; penultimate segment of anterior and intermediate tarsi dilated, excavate beneath, bearing fifth segment on middle of its ventral surface, posterior tibiae with three oblique ridges, all extending less than half distance across outer surface; basitarsi with four, second segment with two oblique ridges, each extending less than halfway across outer surface. Tarsal claws with four teeth, distal one blunt, others acute (fig. 18, *m*). Outer spur of posterior tibiae stout, but twice as long as inner one. Anal style but twice length of apical ventral segment (1.1 by 0.55 mm.), stout, suddenly constricted at middle, thence attenuate to apex, latter narrowly truncate; last ventral segment but twice as long as penultimate one.

Type locality.—Jalapa, Mexico.

Type.—A unique male, U.S.N.M. No. 52918, collected by J. T. Mason.

MORDELLISTENA TEXANA Smith

Mordellistena texana SMITH, Trans. Amer. Ent. Soc., vol. 10, pp. 89, 98, pl. 3, fig. 28, 1882.

One specimen: Colima, Colima, Mexico (L. Conradt).

MORDELLISTENA CHIAPENSIS, new species

FIGURE 18, *n*

This species is most closely allied to *gracilicornis* Champion (1891, p. 318) and may be separated from the latter member of the genus by the distinct difference in color pattern of the dorsal surface, the shorter, broader antennae, the broader, more rounded distal segment of the maxillary palpi, and the longer anal style.

Length: (male) 3.9 and (female) 4.9 mm.; including anal style, (male) 4.9 and (female) 6 mm. Form elongate, narrow, sides subparallel, distinctly narrowing at apical third of elytra, broadest at middle of pronotum. Body brunneous, legs a little lighter, eyes, tips of mandibles, and ridges of posterior tibiae and tarsi black. Surface densely covered with fine, recumbent pubescence, distinctly yellowish on entire body, except on posterior tibiae and tarsi and anal style, where it partakes of ground color.

Antennae (male) 1.4 and (female) 1.7 mm. long, reaching base of abdomen; segment 4 distinctly longer but very little broader than 3; 5-10 somewhat flattened and a little dilated at apex, each as long as and noticeably broader than 4; 11 one-third longer than 10, sides and apex rounded, broadest at distal third. Distal segment of maxillary palpi enlarged, strongly robust, with the form of an isosceles triangle, mesal and apical sides equal in length, all sides and corners distinctly rounded, broadest medially. Eyes large, coarsely granulated, anterior margin emarginate (male) or truncate (female). Pronotum but slightly broader than long (1.2 by 1 mm. in male, 1.5 by 1.3 mm. in female), sides subparallel to within a third of apex, thence attenuate and broadly rounded to apex, apices individually rounded. Intermediate tibiae and tarsi equal in length; penultimate segment of anterior and intermediate tarsi dilated, emarginate at apex, receiving distal segment on its ventral surface. Posterior tibiae with four subequal, oblique ridges extending halfway across outer surface; basitarsi with four, second segment with two oblique ridges, all extending halfway across outer surface. Tarsal claws with five distinct teeth, distal four long, acute, proximal one premedian, short, blunt, obtuse (fig. 18, *n*). Outer spur of posterior tibiae less than twice as long as inner one. Anal style distinctly more than twice as long as apical ventral segment (1 by 0.4 mm. in male, broken in female), narrow, attenuate to apex; last ventral segment twice length of penultimate one.

Type locality.—Finca Belen, Chiapas, Mexico.

Type.—Male, U.S.N.M. No. 52944.

Remarks.—Two specimens, type and allotype, were taken at Finca Belen, Chiapas, Mexico, April 22, 1932, at light, 800 meters elevation (A. Dampf).

As noted in the description above, there exists a distinct sexual difference in the condition of the anterior margin of the compound eye. The antennae, maxillary palpi, and the ridges of the posterior tibiae and tarsi do not indicate a further possibility of sexual separation.

MORDELLISTENA HEXASTIGMA Champion

Mordellistena hexastigma CHAMPION, *Biologia Centrali-Americana*, Coleoptera, vol. 4, pt. 2, p. 321, pl. 14, figs. 12, 12a, 1891.

One specimen: Porto Bello, Panama, February 18, 1911 (E. A. Schwarz).

MORDELLISTENA RUFONOTATA Champion

Mordellistena rufonotata CHAMPION, *Biologia Centrali-Americana*, Coleoptera, vol. 4, pt. 2, p. 318, pl. 14, fig. 7, 1891.

Two specimens: Both from San Cristobal las Casas, Chiapas, Mexico, June 4, 1926 (A. Dampf).

MORDELLISTENA CALLENS Champion

Mordellistena callens CHAMPION, *Biologia Centrali-Americana*, Coleoptera, vol. 4, pt. 2, p. 315, 1891.

Three specimens: One from Finca Vergel, Chiapas, Mexico, May 19, 1935, on wing, 700 meters elevation (A. Dampf); one from La Ceiba, Honduras, September 23, 1916 (F. J. Dyer); one from Paraiso, Canal Zone, Panama, April 29, 1911 (E. A. Schwarz).

MORDELLISTENA VAFER Champion

Mordellistena vafer CHAMPION, *Biologia Centrali-Americana*, Coleoptera, vol. 4, pt. 2, p. 314, 1891.

One specimen: Panama City, April 13, 1911 (A. H. Jennings).

MORDELLISTENA CASTANEICOLOR Champion

Mordellistena castaneicolor CHAMPION, *Biologia Centrali-Americana*, Coleoptera, vol. 4, pt. 2, p. 313, pl. 14, figs. 1, 1a, 1891.

Five specimens: Three from Port Bello, Panama, February 15, 20, and March 1, 1911 (E. A. Schwarz); two from Finca Vergel, Huixtla Valley, Chiapas, Mexico, May 19, 1935, at light, 1,200 meters elevation (A. Dampf).

Genus DICLIDIA LeConte

Diclidia LECONTE, *Proc. Acad. Nat. Sci. Philadelphia*, vol. 14, p. 43, 1862.

DICLIDIA UNDATA Champion

Diclidia undata CHAMPION, *Biologia Centrali-Americana*, Coleoptera, vol. 4, pt. 2, p. 250, pl. 11, figs. 1, 1a, 1891.

Two specimens: Both from Zacatepec, Pueblo, Mexico, June 28, 1932, at light, 2,000 meters elevation (A. Dampf).

DICLIDIA MEXICANA, new species

This species may easily be separate from the only other Central American member of the genus, *undata* Champion (1891, p. 250), by the difference in color, the broader distal segments of the antennae, the broader, more depressed form, and the shorter antennae. From *inyoensis* Liljeblad (1921, p. 181) it may be distinguished by the difference in color, the much larger size, the peculiar character of the antennae, and the greater compression and elevation of the mesosternum.

Length: 3.5 mm. Form oblong-ovate, rounded anteriorly and posteriorly, broadest near middle of elytra. Head fuscocastaneous, pronotum castaneous, elytra piceous; antennae flavous at base, successively darker distally, last five segments piceous; ventral surface piceous, anterior legs castaneous, intermediate and posterior pair fuscocastaneous. Body densely covered with fine, whitish-yellow pubescence; surface of pronotum and elytra covered with fine, whitish-yellow pubescence; surface of pronotum and elytra covered with fine, transverse strigae, generally obscured by the pubescence.

Antennae 1.1 mm. long, reaching base of lateral pronotal margin; segments 1 and 2 equal; 4 more than one-half longer than 3; 5 equal to 4; 6 equal to 2; 7-10 short, dilated, forming a loose, elongate club, as broad as long; 11 almost twice as long as 10 and equally broad, broadest medially, sides almost straight, apex rounded. Maxillary palpi missing. Pronotum one-half broader than long (1.2 by 0.8 mm.), apex and sides broadly rounded in a continuous semicircle, broadest at base, basal angles acute, base but slightly arcuate, no mid-basal lobe being distinguishable. Scutellum large, triangular. Elytra slightly more than twice as long as broad at base (2.5 by 1.2 mm.), sides visibly curved from base to apex, apices individually rounded. Anterior and intermediate tibiae slender, as long as their tarsi, second and third segments of latter part short, penultimate segment dilated with emarginate apex, bearing distal segment on its ventral surface. Tarsal claws with but the single distal prolongation.

Type locality.—Santa Anita, Jalisco, Mexico.

Type.—Female, U.S.N.M., No. 52931, a unique specimen taken August 7, 1927, on weeds, 2,000 meters elevation (A. Dampf).

Genus NAUCLES Champion

Naucles CHAMPION, *Biologia Centrali-Americana*, Coleoptera, vol. 4, pt. 2, p. 257, 1891.

NAUCLES BASALIS Champion

Naucles basalis CHAMPION, *Biologia Centrali-Americana*, Coleoptera, vol. 4, pt. 2, p. 258, 1891.

Six specimens: Four from Tampico, Mexico, February 16 (3) and December (E. A. Schwarz); two from Progreso, Yucatan, Mexico, June 7 (F. Knab).

NAUCLES FASCIATA, new species

Superficially this species resembles *Anthobatula quadriguttata* Champion (1891, p. 255), but the much smaller size, the entirely different character of the maxillary palpi and antennae, and the five visible ventral abdominal segments adequately distinguish *fasciata* from *quadriguttata*. This species is unquestionably a species of the genus *Naucles* and may easily be separated from the four previously known members of the genus by the difference in the length of the various antennal segments, the maculation of the elytra, and the larger size.

Length: 1.7 mm. Form oblong-ovate, rounded anteriorly and posteriorly, broadest near middle of elytra. Derm flavous, eyes black, nine distal segments of antennae, mesosternum and metasternum and ventral abdominal segments fuscocastaneous; elytra with base, suture, except apical sixth, lateral margin, except broadly rounded apical portion, and a broad, postmedian, transverse band, fuscous. Body densely covered with fine, recumbent, flavous pubescence.

Antennae 0.5 mm. long, reaching intermediate coxae; segment 2 twice as long as 1; 3 slightly longer than 4; 4-6 equal 7-10 broadened, forming a loose, elongate club, each segment distinctly broader than long; 11 as long as 10, but narrower, broadest subbasally, sides and apex rounded. Distal segment of maxillary palpi enlarged, elongate, with form of a scalene triangle, apical margin very obliquely truncate, corners and sides rounded; terminal segment of labial palpi slender, apical half prolonged, acuminate. Pronotum distinctly broader than long (0.65 by 0.45 mm.), apex and sides broadly rounded in a continuous semicircle, broadest at base, basal angles acute, base arcuate, midbasal lobe short, but rounded; entire surface covered with fine, transverse strigae. Scutellum moderately large, semicircular. Elytra almost two-thirds longer than broad (1.25 by 0.8 mm.), lateral margin distinctly curved, broadest submedially, apical fourth broadly rounded, apices individually curved; basal fourth of surface faintly covered with transverse strigae. Penultimate and antepenultimate segments of anterior and intermediate legs much shortened, as broad as long. Tarsal claws with but the single distal prolongation.

Type locality.—Ponce, Puerto Rico.

Type.—Female, U.S.N.M. No. 52921.

Remarks.—The type and seven female paratypes were collected at Ponce, Puerto Rico, August 7, 1933, on flowers of *Randia mitis* (R. G. Oakley). Another female paratype, from the same locality, was taken on August 8, 1935 (R. G. Oakley). Since six of the specimens have protruding genitalia and all are alike in other respects, I am obliged to consider them as apparently all females.

The markings on the elytra vary considerably in both width of fasciae and depth of color. In one specimen they are visible only when turned at an angle to the disk.

Genus ANTHOBATULA Strand

Anthobatula STRAND, Acta Univ. Latviensis, vol. 20, p. 23, 1929.

Anthobates LECONTE, nec Gistel, in Agassiz and Cabot, Lake Superior, p. 231, 1850.

Pentaria MULSANT, Ann. Soc. Linn. Lyon, ser. 2, vol. 3, p. 391, 439, 1856.

ANTHOBATULA MULTIPILIS, new species

In Champion's key to the Central American species of *Pentaria* (1891, p. 252) this species runs to *flavipes* Champion (1891, p. 253). It may be separated from that member of the genus, however, by the unicolorous antennae, which do not have the distal segments transverse, in the color of the ventral surface and legs, and in the broader form of the body. *A. multipilis* is not closely allied to any of the North American members of the genus.

Length: 2.1 mm. Form oblong-ovate, rounded anteriorly and posteriorly, broadest near middle of elytra. Derm piceous, dull, apex of front, clypeus, metasternum, abdomen, legs, and antennae castaneous, maxillary palpi and genitalia flavous. Body densely covered with fine, short, recumbent pubescence, silvery on dorsal surface, partaking of ground color ventrally.

Antennae 0.7 mm. long, reaching intermediate coxae; segments 3-6 equal; 7-10 each twice as long as 5 but slightly broader; 11 slightly longer and narrower than 10, sides straight, apex rounded. Distal segment of maxillary palpi enlarged, with form of an elongate, scalene triangle, basal and apical angles acute, mesal angle obtuse, all rounded, sides straight, except apical fifth of lateral margin, which is distinctly rounded. Pronotum one-half broader than long (0.9 by 0.6 mm.), sides and apex broadly rounded in a single continuous curve, basal angles obtuse, base arcuate, midbasal lobe very short, but rounded. Scutellum subtriangular, sides and apical angle rounded. Elytra but one-half longer than broad (1.5 by 1 mm.), sides visibly rounded, broadest postmedially, apices individually rounded; surface completely covered with numerous, fine, transverse strigae. Intermediate and posterior tibiae approxi-

mately equal in length to their tarsi, third and fourth segments of latter structure short, fourth segment dilated, receiving distal segment in a cavity near basal margin. Tarsal claws with but a single tooth, the distal prolongation.

Type locality.—Cayamas, Cuba.

Type.—Male, U.S.N.M. No. 52932.

Remarks.—The type was taken on January 17, the allotype on January 16, seven paratypes (2 males, 5 females) were taken January 22, February 3, January 20, February 10 (2), February 24, and June 10; all were taken at Cayamas, Cuba (E. A. Schwarz).

There is some variation in the color of the ventral surface and in the extent of the castaneous area on the front and clypeus. It is entirely possible that some specimens in a larger series would be entirely piceous.

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